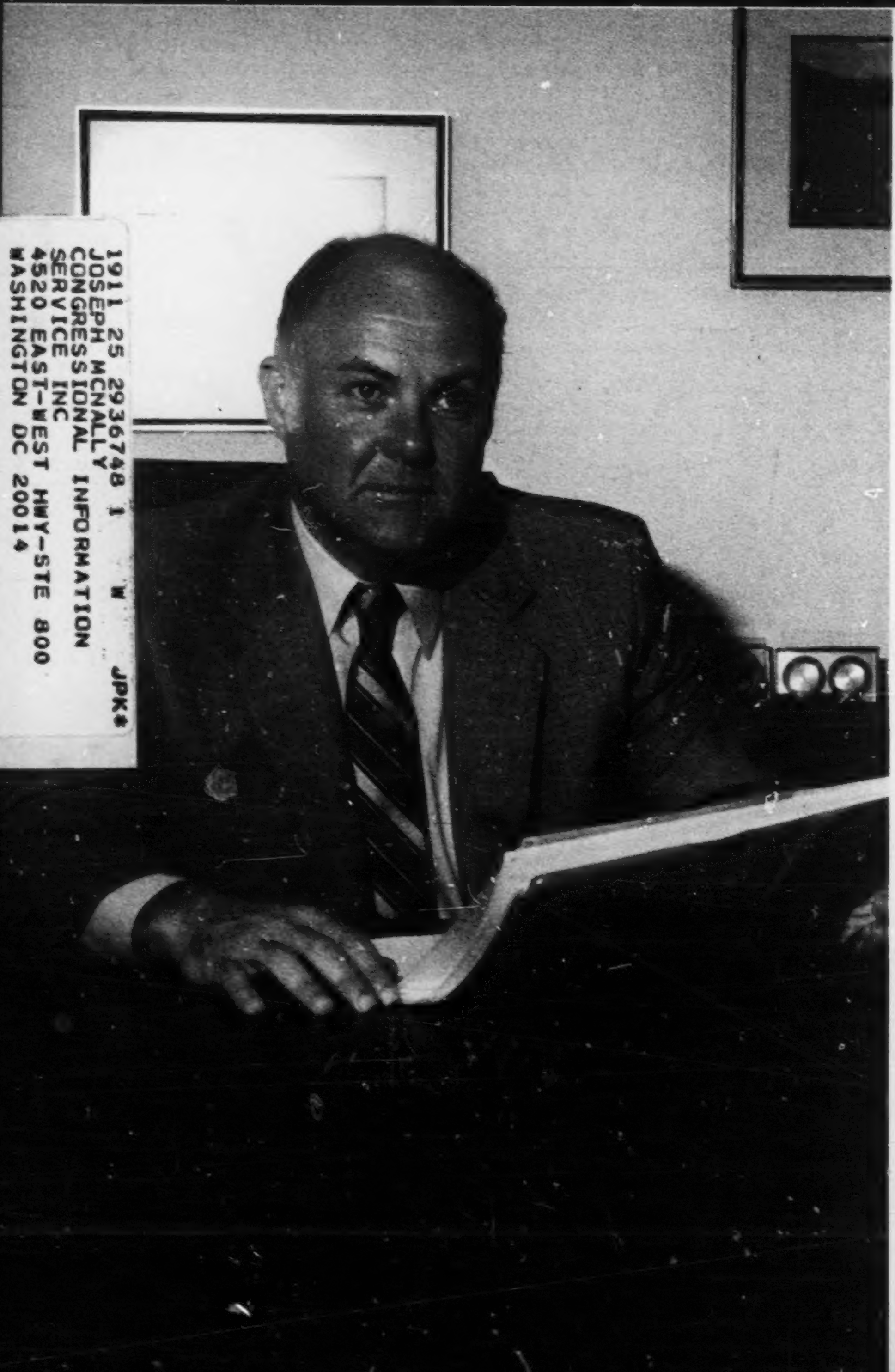
C 8650-2

November 1981

Purchasing World



1911 25 2936748 1 W JPK*
JOSEPH MCNALLY
CONGRESSIONAL INFORMATION
SERVICE INC
4520 EAST-WEST HWY-STE 800
WASHINGTON DC 20014

# What's Ahead

**Inventory charges** have hit new highs, according to our latest survey. Almost 80% of PMs say carrying costs are now 30% per year or more (p. 6)

**Productivity** will improve, but not by much. A number of factors in the mature U.S. economy will make large advances difficult if not impossible (p. 60).

**Steel prices** will advance at a slower rate next year, although a modest improvement in overall demand is expected (p. 66).

**Energy tags** should remain fairly stable next year, barring massive problems growing out of Sadat's assassination (p. 90).

# Information systems for better purchasing

## —page 34

John Overton, manager of procurement for Beech Aircraft, is one of many purchasing managers who have put computers to work to save money and improve operations. How Beech and three other companies have benefited from automation is described in our cover feature.

# PurchasingWorld®

Vol. 25, No. 11 - November 1981

## Helping you manage the business of buying

**Editorial Staff**

Editor
Richard L. Dunn

Executive Editor
Robert S. Reichard†

Managing Editor
Paul V. Farrell†

Technical Editor
John Fitts

Management Editor
Lea Tonkin

Production Editor
Teri Preston

Art Director
Richard Trefilek

Assistant Art Director
Robert Fry

**Consulting Editors**

Economics and Government
Dr. Louis J. Paradiso

Purchasing and the Law
Dr. John E. Murray, Jr.

Value Analysis
Lawrence D. Miles

Materials Management
Ernest C. Huge

Negotiating
Louis DeRose

Transportation
Dr. Leon Wm. Morse

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing

a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

6 **Inventory costs: Up, up, and away.** Buyers are now being hit with 30%-per-year and higher inventory charges, according to a recent *PurchasingWorld* survey.

34 **Information systems clear a path to better purchasing.** Here's how purchasing executives upgrade performance and profit contributions through effective computer use.

38 **Interface: purchasing and production control in the 1980s.** Understanding provides a framework for more effective teamwork in this sometimes critical relationship.

40 **When to replace lift trucks.** Here's a method for determining the optimum point—based on life-cycle costs—of lift trucks.

55 **Now is the time for strategic materials planning.** Purchasing expertise is needed to counter supply disruptions and price escalation in key, critical items.

60 **U.S. industrial productivity: What to expect this decade.** Key indicators point to productivity as one of the answers to stemming inflation.

63 **Helping minority suppliers become better sources.** Survey reveals techniques to turn minority suppliers into more qualified, reliable sources.

66 **Moderate gains for steel prices and shipments.** Supply-demand balance and continued competition from imports mean that increases will be less than dramatic.

68 **Guidelines for buying carbide inserts.** Improved carbide insert buying practices can significantly increase the productivity of machine tools.

70 **Information processing means growth for office supplies.** Study forecasts accelerated expenditures for office supplies and equipment.

88 **Expediting subcontractors: Whose responsibility?** Today's expeditors often have to be part detective, part diplomat, and part bulldog to be successful.

90 **Energy tags appear stable.** The outlook for continuing energy price moderation looks good—at least over the short term.

94 **Purchasing air freight.** An industry expert tells what you should think about when evaluating carriers and forwarders.

## Around the purchasing world

8 **PW Predicts**
13 **PW Perspective**
17 **Washington Perspective**
18 **Purchasing and the Law**
24 **Effective Negotiating**
28 **Principles of Value Analysis**
32 **Materials Management Close-Up**
79 **Industry Newsbriefs**
81 **Freight Newsbriefs**
97 **International Perspective**
98 **Labor Perspective**
103 **NAPM Perspective**
104 **Transportation Briefing**
107 **Product Information**
114 **Product Briefs***
119 **Pro-D/Management Briefs****
138 **Price Perspective**
140 **Latest Scrap Quotations**
145 **SSCI Survey of Business Conditions**
146 **Procurement Status Report**
148 **Business in Brief**
150 **Industrial Prices at a Glance**
152 **Raw Materials Price Barometer**

* Metalworking edition

** Regional edition

ABP

BPA

*PurchasingWorld* (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $36/year; Canada $42/year. Foreign subscriptions are available for £65 airmail or £35 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010.

Copyright © by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation. A company of the Dun & Bradstreet Corporation, 1981—All Rights Reserved.
ISSN 0093-1659.

# Inventory costs: Up, up, and away

Consider yourself one of the lucky few if you're paying less than 2½% a month (less than 30% on an annual basis) to carry and maintain inventories.

Indeed, almost four out of every five buyers surveyed in a new nationwide ***Purchasing World*** survey say that they're now being hit with outsized 30%-per-year and higher charges. It's all in sharp contrast to the findings of a similar ***Purchasing World*** survey taken in early 1980 (almost two years ago) when 40% of the respondents were in the under-30%-a-year cost category.

As might be expected, sky-high interest rates are blamed for most of the recent increases—though such other cost factors as labor and insurance are also cited as contributing to the runup.

Some other specific findings:

■ **Increases over the past year:** There is considerable variation here (see chart). But the average of all respondents comes out in the 5-6 percentage point range. It suggests that close to ½% a month has been added onto carrying costs since last fall.

■ **The role of interest rates:** Costs of this one key factor range up to 20% annually—with money, on average, accounting for at least half of all inventory carrying costs—and in some cases as much as three-fourths of the total.

■ **Reliance on formulas:** The overwhelming majority of respondents use some kind of order formula that plugs in carrying costs as a key variable in big volume purchases.

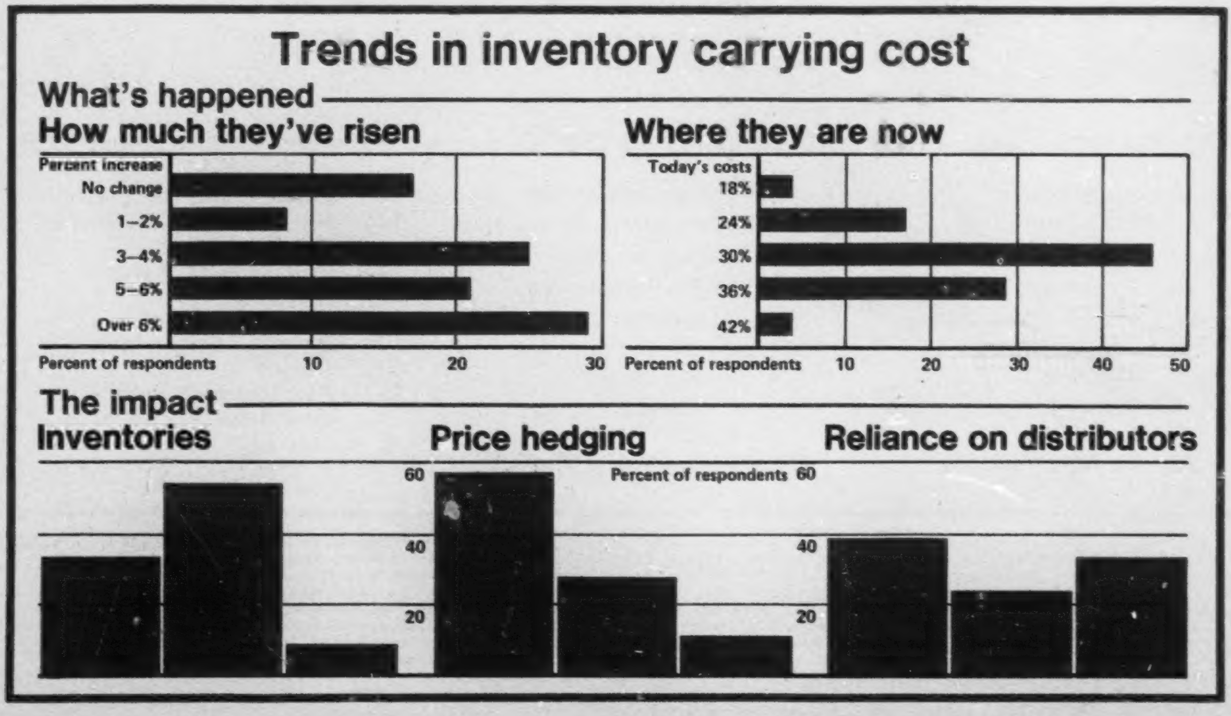
■ **Price hedging:** Big carrying cost advances have clearly had a major impact here—as PMs strive to keep down overall holdings. Specifically, 58% of the respondents tell of doing much less forward buying to beat announced price hikes. And another 29% admitting to somewhat less hedging than they were doing just a year or so ago.

■ **Reliance on distributors:** An increasing number of purchasing managers say they're going the service center route in an effort to shift some of the inventory burden further upstream. The pertinent figures here: 40% are doing much more buying on the distributor level, with another 25% beginning to step up their activity on this front.

Worth noting in this respect: Two years ago, only 20% of the queried PMs admitted to doing much more buying from wholesalers. This trend, incidentally, would seem to be confirmed by the Steel Service Center Institute which reports overall member orders coming in at a relatively faster clip than reported by the steel industry as a whole.

But less price hedging and more distributor buying are only part of the typical buyer's strategy to keep inventories and, hence, inventory carrying costs down to manageable levels. Other approaches mentioned by respondents include (1) consignment buying, (2) more vendor stocking, (3) sophisticated computer reordering techniques, (4) making adjustments to production schedules, (5) better sales forecasting, and (6) blanket orders.

All these approaches are not without some risk. But as one Midwestern purchasing executive sums it up, "we're now willing to take limited risks. It is something that has to be done if we're to keep inventory carrying charges within bounds and remain competitive." ***PW***



Trends in inventory carrying cost

# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Semiconductor prices may bottom out soon

The long slide in semiconductor prices may be nearing an end. Certainly, it would be unrealistic to expect a repeat of this year when some quotes dropped more than 50%.

Commenting on the anticipated firming, Robert Royce, vice chairman of Intel and chairman of the Semiconductor Industry Association, notes that "prices can't go much lower." He adds that nobody can afford to subsidize the customer as much as the industry has done over the past year.

In any event, further substantial reductions in memory devices (for example, the 16K dynamic RAM fell from $2.75 all the way down to $1.25) now seems highly unlikely.

But the industry is basing its projections for firming prices on more than just mounting cost pressures. Most suppliers, for instance, are counting on a substantial pickup in demand. Right now, 1982 forecasts call for a 17% increase in sales. That's enough to bring totals up to $10.91 billion, and represents a sharp reversal from 1981 when dollar totals are expected to be off by close to 7%.

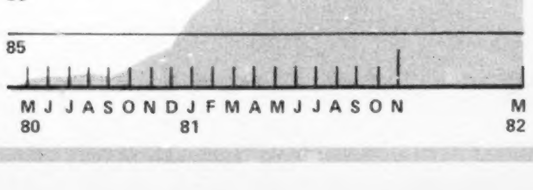
And preliminary indications suggest an even better year for 1983. Sales at that time should jump by almost 24%—bringing the total up to over $12.5 billion.

### Steel

Fourth-quarter shipments look to re-

## The copper price scene

**CURRENT SITUATION: The market remains basically soft**—aggravated by order cancellations and stretchouts, as two of the red metal's key markets (construction and autos) remain in the doldrums. Right now, it looks as though producer shipments will do little more than equal last year's disappointing levels. Indeed, add in lackluster overseas buying, and **Free World refined consumption may actually be off about 1% from last year's 7.3 million tons**—a figure which, in turn, was off 3% from 1979. Prices continue easy, backing and filling in the low 80-85¢/lb range.



**DEMAND: Next year looks considerably better**—if, as expected, interest rates begin to moderate. Car sales could be up about a million units (to near 10 million). And housing starts could rise to near 1.4 million units—quite low but a lot better than 1981's dismal 1.2 million performance. **The longterm outlook: Global use through the mid-1980s is expected to rise about 3% a year.** True, fibre optics could cut into some communications markets, but this could be offset by gains in electrical vehicles and solar energy use.

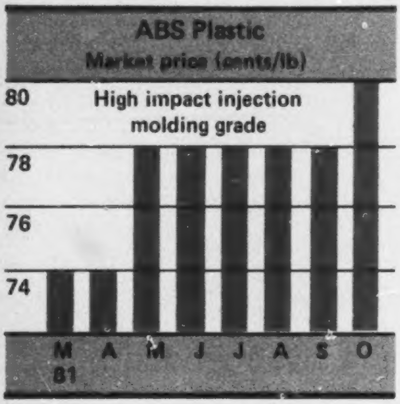
**SUPPLY: Producer inventories are in fairly good shape**—with Free World refined stocks the equivalent of only about a 2-month supply—well under the 4-month peak of early 1978. On the other hand, **capacity is more than ample. And it's likely to stay that way**—despite the fact that no major "world class" mine will be coming on stream over the next few years—except possibly for the Sar Chesmeh complex in Iran.

**PRICE OUTLOOK: Don't expect current low levels to last forever.** Once demand begins to pick up—probably in early 1982—prices should start following suit. The cost squeeze (most producers are barely breaking even today) also suggests rising tags. **By next spring quotes could well be above the 90¢/lb mark**—with any advance beyond that level depending on how fast some of today's depressed copper-using industries pick up. **But talk of $1.50/lb metal seems premature**—despite the fact that producers say they need such prices to justify new expansion.

main relatively flat at around the 21-21.5 million-ton mark—thus ruling out any significant nearterm price advance. Import competition (over 18 million tons will enter the country this year) could be a further restraining factor on prices. Next year, meantime, is expected to get off to a slow start. But a gradual demand pickup could bring shipment totals into the 93 million-ton range—enough to support an average price advance of 8-10%.

### ABS plastics

List prices are going up. But market levels are likely to lag the 4-6¢/lb advances suggested by new book levels. Best bet: about a 2¢/lb market level increase which would bring quotes for high impact injection molding material up to about 80¢/lb. One factor limiting increases is excess capacity. The industry is operating in the low 60% range—and substantial new additions are scheduled to come on stream early next year.



### Chlorine

New attempts to post a $15-20/ton increase in off-list prices are running into buyer resistance—as demand continues to lag. Consensus is that any significant increase will have to wait on a major recovery in PVC and other downstream products. Meantime, large-volume customers can probably continue purchasing this key inorganic chemical for as low as $95/ton—not even within shooting distance of the average $145/ton producer list.

### Aluminum

Still no sign of any upturn for the light metal. In fact, as things now shape up, domestic shipments could be off as much as 3% this year. And with U.S. producer stocks at a high 4½-month supply, production cutbacks are accelerating. In any case, U.S. primaries are now operating at only around the 80% level. Add in high overseas stocks, and any nearterm price recovery seems remote—with merchant ingot remaining some 20¢/lb under producer official lists. Price hikes next year also won't be that easy to come by as industry operating rates fail to rise above the 85% level.

### Specialty steel

Price weakness is becoming increasingly evident as demand lags expectations. Examples: (1) A 7% October increase in high speed steels has been deferred indefinitely and (2) the current erosion in recently boosted stainless steels. On the latter score, less than half of a 7½% boost in sheet has held up because of widening discounts. Substantial shading has also been reported in stainless plate—with discounts ranging as high as 12-18% noted on some types.

### Petroleum

The longterm prognosis for oil prices is looking increasingly favorable. So say Texaco executives who see increases ranging only 1-2% above the general inflation level over the next two decades. Behind the optimism: Improving supply-demand balance. Another projection by the big oil company: Conservation efforts will continue. Indeed, annual Free World consumption gains are put at less than 1% over this extended period—far below anticipated real GNP growth rates. Moreover, for some key product areas, such as gasoline, usage is expected to remain virtually unchanged.

### Lumber

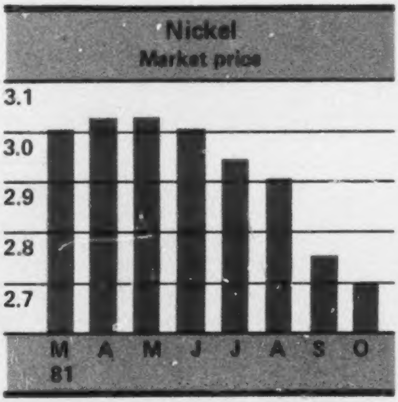
Current depressed markets are likely to continue—on a combination of sagging housing starts and the normal winter slowdown. In any event 1981 will wind up a relatively poor year—with production now put at only 30 billion board feet—down 2.4 billion from last year. Prices, meantime, continue to slip—and could edge even lower in the months immediately ahead despite the fact that some producers have dropped operating rates down into the low 60-70% range.

### Lead

Prices are levelling off after recent sharp declines. But little nearterm bounceback is anticipated as battery makers continue to work off inventories and production (following the recent rash of strikes) begins to rise. But several factors could busy the market over the longer pull: (1) any big increase in Soviet buying, (2) an especially severe winter, and (3) the closing of the Bunker Hill facility and its 140,000 tons per year of capacity. The latter, if nothing else, would mean an end to current domestic supply-demand balance.

### Nickel

Spot markets look to remain quite weak into early winter—with prices holding in the low $2.70/lb range—well under the official $3.45-3.50/lb producer list. Behind the easiness: poor demand (Free World usage this year is expected to be hard pressed to reach last year's 1.15 billion lb level). Next year, however, looks a lot better, with a 10%-plus gain being projected. The longer-term prognosis also looks fairly rosy (3.5% annual advances through the mid-1980s). But even with such gains, there should be more than enough metal to go around.



### Benzene

A huge inventory overhang (recently put at over 450 million gallons—the equivalent of a 5-month supply) is expected to keep tags under downward pressure. A sign of the times: current spot barge offerings at some 10¢/gallon under the recently reduced contrast level. Behind much of the easiness: Poor demand from such key derivatives as styrene and cyclohexane—products which account for a large percentage of normal sales volume. True, producers are now slashing output. But anything even remotely resembling a balanced market is at least 3-6 months down the road.

### Pulp

Not even a recently scaled down increase in Canadian softwood kraft material (to only $565/metric ton) is likely to hold. Indeed, it's conceivable that renewed discounting could bring quotes down back to the old $530/ton level as demand for fine papers continues to disappoint. Adding to possible downward pressure are possible sales by integrated pulp and paper companies if they can't sell their finished paper products. Prices of the latter, incidentally, will also remain under pressure, with increases especially hard to come by over the next few months.

### Tall oil fatty acids

Prices of this key paint, soap, and detergent feedstock continue on the soft side—with acids containing more than 2% resins being discounted by as much as 6-7¢/lb. More significant, the easiness is expected to spill over into early 1982 as (1) paint demand remains slow, and (2) vegetable oils provide increasing competition in the big soap and detergent market.

### Uranium

The depressed nuclear fuel may be ready to bottom out—as producer output cutbacks begin to have an impact. It should mark the end of a two-year price decline. Over that time, tags have been virtually halved—dropping from $43/lb in 1979 to $23.50/lb currently—with the latest return not even permitting some producers to recoup direct costs. But by 1985, the current supply glut should just about disappear—and prices are expected to rise above the $25/lb level. ***PW***

## The chemicals price scene

**CURRENT SITUATION: Overall demand, while less than previously anticipated, continues to run moderately above last year.** Based on year-to-date performance, for example, the overall advance could be around 4%—just about recouping last year's loss. **Capacity, meantime, remains far under preferred levels—limiting price increases,** despite still-rising material, labor, and distribution costs. Average hikes over the past six months have only been on the order of 3%—with some areas such as aromatics and plastics subject to considerable discounting.

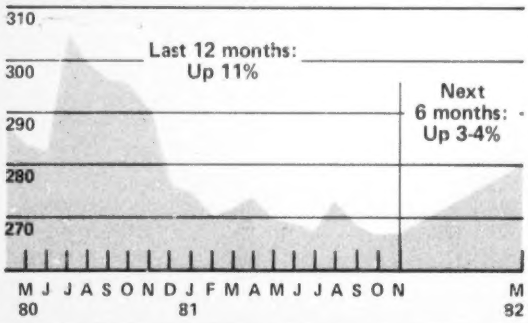
**DEMAND: Next year, which is expected to get off to a relatively slow start, should end up with average gains in the 4-5% range**—about twice the expected overall business growth rate. Some areas, like plastics, will do considerably better, with another double-digit advance anticipated. Organic chemicals should also outperform overall averages. **And the uptrend is expected to accelerate over the following year (1983)** when an improving GNP could bring annual chemical consumption and production increases up into the 6% range.

**SUPPLY: Very few problems here**—with even the recent shortage in caustic soda beginning to ease. One measure of overall availability is the industry operating rate—**currently in the low 78% range and expected to edge up only to 80-81% next year as new capacity continues to come on stream.** On the latter score, the production potential for organics should be up about 4% next year—with an even more impressive 7% gain seen for plastics.

**PRICE OUTLOOK: Much depends on crude oil tags.** But if one assumes moderation here, then advances over the next six months are likely to be quite modest—**maybe 3-4% for the industry as a whole. After that, however, improving demand should permit bigger increases with averages for the year up about 8-9%.** But organics and plastics, which have been extremely depressed, should move up a lot faster—perhaps as much as 15%—as vendors move to beef up currently sagging margins.

### Chemicals and allied products

Index 1967=100



# Moderate gains for steel prices and shipments

### Supply-demand balance and continued competition from imports mean that increases will be less than dramatic

Look for somewhat smaller price increases in steel next year—despite expectations of a modest improvement in overall demand.

So predicts the DRI Steel Service as it takes another good, hard look at this bellwether industry. Some of the econometric consulting firm's more specific projections for the upcoming year are:

- Domestic list prices could rise by 9% or less in 1982—though market quotes could be up more if today's big discounts begin to narrow.
- Domestic shipments could rise to near 9 million tons—a fair-sized 5-million-ton advance over this next year's expected level—but still well under the 100-million-ton high hit back in 1979.
- Import prices could show a relatively small 6% advance next year—and incoming overseas volume will remain high at around 17 million tons.
- Few problems on availability are seen—aside from selected pipe and tube products. But there could be some tendency toward tightening in sheet products toward 1983.

Coming back to price—the slight 1982 list price deceleration in domestic steel (to a near 9% rate) is based on several factors—including (1) some modest improvements in productivity and labor cost, (2) a lag response of prices to improving market conditions, and (3) continuing import competition.

Looking a little more closely at the labor and productivity factor, DRI cites some encouraging trends. For one, the yield of shipments from raw steel (measured on a 12-month moving average basis) had been rising—from an average of 71.7% in 1977 to near 74.9% for the year ending July 1981.

Much of this can be traced to the increasing emphasis on continuous casting, where the share of output using this advanced technique has risen from 11.9% in 1977 to 20.3% currently. Equally significant, investment in continuous casting capacity is a high-priority item in the steel industry's spending plans.

Also worth noting on the productivity front: The 12-month moving average of man hours per ton shipped has declined to 6.8 for the period ending in July 1981—down from 7.7 in 1973 and 8.7 in 1975.

If these productivity trends continue, (as is likely) and if the steel labor agreement of 1983 is moderate (which is quite possible), the cost pressure on steel prices will be much reduced, and price hikes due to strong demand relative to capacity will be smaller than otherwise would be the case.

A few further comments on imports also are in order; specifically, why DRI anticipates a relatively low 6% price increase for next year.

For one, the Japanese cost inflation—the basis for setting trigger (floor) prices on imports—remains low. Then, too, the high value of the dollar over the past year will be moving into the calculation of import triggers over the next several quarters—thus further dampening any price hikes.

But don't expect this relatively tolerable price pattern—both in domestic and import steel—to continue indefinitely (see Fig. 1). According to DRI equations, for example, you can look for hefty increase in both domestic and imported steel prices by the following year (1983) in the range of 11-12%.

Shifting to the demand sector, DRI analysts feel that the industry will be lucky to ship 88 million tons of finished steel this year—because of (1) sluggish steel consumption, (2) drawdowns of user inventory, and (3) continued high imports.

Whether the weakness extends into 1982 depends very much on interest rates. A steady and convincing decline in interest rates could spark a steel recovery led by the automotive market starting late in the first quarter and joined by capital goods in mid-1982.

But strength of any upturn is likely to be modest initially. In any case, the DRI shipment figure for 1982 is put at only 93 million tons—and it is only in the following year (1983) that totals will again approach triple digit levels.

Meantime, as suggested earlier, import tonnages will continue to play a major role. Sparked by relatively favorable prices, 18 million tons or more will find their way into the country this year—with only a slight decline toward 17 million tons projected for both 1982 and 1983.

Taking a look at availability, DRI notes no current problems—except for pipe and tubing imports, which are currently soaring due, in part, to a domestic supply-demand shortfall.

But that's not to say there could not be other problems by 1983. To better evaluate the product-by-product supply outlook, DRI prefers to study demand in terms of previous peaks—assuming that these previous peaks can be used as an approximate measure of capacity or availability.

As one spokesman puts it, "Whenever the shipment rate begins to exceed 90% of its previous peak on a sustained basis, it could well be a signal of possible tight supplies and rising cost pressures."

In any event, the data shown in Fig. 2 would seem to confirm the efficiency of this approach. Note, for example, that domestic shipments of pipe and tubing are already above their previous peak. Equally significant, sheet mill products are only five percentage points from the critical 90% cutoff point—suggesting that if auto, industrial machinery, construction, and appliance markets pick up, there could eventually be some tightness in this category, too.

To better evaluate the possibility of such tightness (and, hence, increased upward price pressure) in steel sheet and other key product lines, analysts present the following detailed outlook for demand in major user areas:

- **Transportation:** Recovery here is expected to be led by purchases of cars and trucks. Domestic retail car sales are forecast to rise by 24% from 6.6 million units in 1981 to 8.2 million in 1983, with 8.0 million 1982. Dealer deliveries of trucks are forecast to rise by 34% from 2.39 million in 1981 to 3.20 million in 1983. Moreover, the import share of cars is expected to drop by about 5%.

The transportation market should also get a lift by 1983 from railroad freight car shipments, which are expected to be about 41,000 in 1981, somewhat lower in 1982, then jumping to the range of 45,000-50,000 for 1983, according to the DRI Transportation Service.

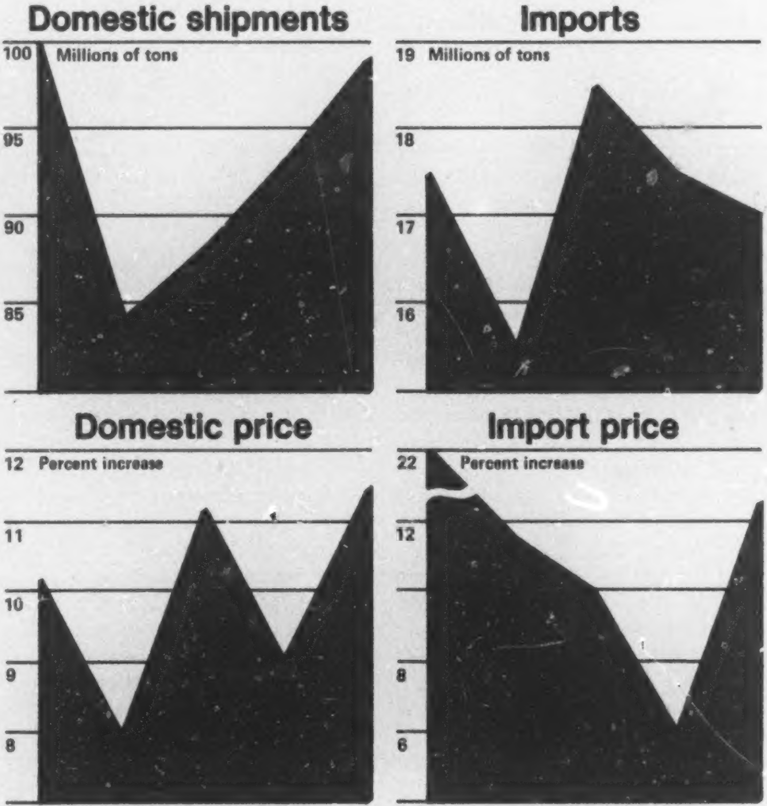
All these gains have to be regarded as bullish for steel, since even during the relatively depressed period of the last 12 months, shipments to transportation categories accounted for about 28% of total steel mill product apparent consumption.

- **Construction and equipment:** Pickup in this segment, which chewed up 22% of all steel mill products over the past 12 months, will be led by purchases of capital goods. Business fixed investment in real or deflated terms is forecast to rise by 1.9% in 1982 over 1981, and by another 5.5% in 1983.
- **Appliances and cars:** While the 9% steel products share of the past year doesn't seem all that large, some good gains are likely. Housing starts (sales of appliances to the replacement market are fairly well correlated with sales to the new home market) will be the catalyst here. The DRI economy forecast sees housing starts moving up to 1.7 million units by 1983, a rise of more than 45% over 1981's expected 1.16 million.

To sum up: Not too many problems—either pricewise or supplywise—are seen for steel buyers over the next few quarters. But closer monitoring is certainly recommended by late in the year and in 1983—as (1) markets gradually come back into closer supply-demand balance and (2) cost pressures mount. ***PW***

Fig. 1

## Steel trends into 1983

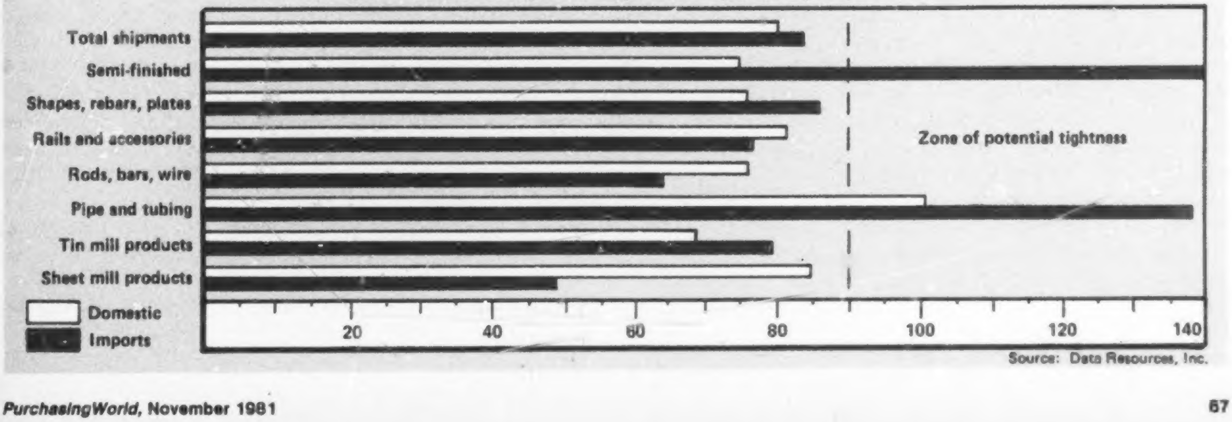


Source: Data Resources, Inc.

Fig. 2

## Steel availability yardsticks

(Last 12 months shipments as percent of previous peak)



Source: Data Resources, Inc.

# Information processing means growth for office supplies

It's a brand-new ballgame as far as office equipment supplies are concerned. The typical purchasing executive is likely to be spending a lot more on a substantially changed mix of products in the years immediately ahead.

The accent will be on information processing supplies where sales in real terms are expected to more than double over the 1980-85 period.

So predicts Frost & Sullivan in a new 295-page report pinpointing technological and market changes that are occurring in this rapidly growing industry. Among other things, the New York-based consulting firm predicts that increasing reliance on electronic devices (for the transmission, storing, retrieving, and viewing of information) will ultimately mean a decline in the use of paper.

The new study also forecasts an accelerated capital investment pace for office equipment. Thus, product life cycles—now running about six or seven years—are expected to shorten to near three years.

As for product-by-product buying trends, here's what Frost & Sullivan says you can expect in six key information-processing supply sectors over the 1980-85 period.

- **Magnetic media:** Eye-opening growth is seen here, with total outlays in constant dollars rising from less than $200 million (at retail) to near $1.6 billion in just five years. That's the equivalent of a 40% annual growth rate.

The greatest price advance will be on soft-sectored media (see table), particularly the 5.25-in. diskettes. Magnetic cards and cassettes will be largely replaced by disks and diskettes.

- **Ribbons:** The retail market for both typewriter and word-processing ribbons will nearly quadruple, from $305.7 million to $1.1 billion (in constant dollar terms). On the typewriter ribbon front, the market will remain near its current size of about $242 million. But the product mix will change drastically as correctable ribbons account for about 80% of the total market and fabric and single strike film ribbons decline in usage.
- **Print elements:** There will be major shift here away from the ball type and toward daisy wheels. The daisy wheel elements will grow from 6 million to 16 million unit and, in constant dollar terms, from $77 million to $181 million. Plastic wheels will outnumber metal wheels by nearly eight to one. The overall element market will rise from $179 million to $280 million.
- **Correction media:** There will be an overall decline in correction media, from $306 million to $282 million, but a substantial increase in one medium—lift-off tapes, which are used with correctable-type ribbons. As the use of word-processing equipment and correcting typewriters increases, the need for coverup types of correction media will decline.
- **Dictation media:** The greatest change here will be a doubling of microcassette machines and the virtual elimination of magnetic belt equipment.

The dictation supplies market will grow to nearly three times its current size, from $54 million to $151 million. This constant-dollar growth will be paced by the rise in microcassette sales from $15 million to $84 million.

- **Copier supplies:** Copier supplies will double, from $1.7 billion to $3.4 billion. The bulk of the market will be in papers for plain-paper copiers ($2.4 billion) and their toners and developers ($460 million).

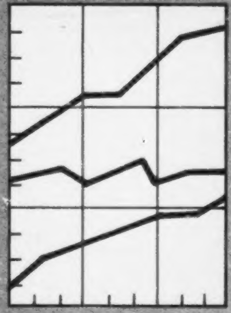
To sum it all up, the traditional office supplies market (fueled by the transition of the office to computer and other electronic-based equipment) is being rapidly transformed into an information-processing supplies market.

As a result, supplies used in the automated office—e.g., magnetic media, print elements, copier supplies, and the like—will more than double over the first half of the decade. Frost & Sullivan's estimate here: A $6.8 billion constant-dollar market by 1985. ***PW***

**Information processing supplies: Portrait of a growth market**

| Product category | Percent increase, 1980-85 (constant dollars) |
|---|---|
| **Magnetic media** | |
| Soft-sectored | 887% |
| Hard-sectored | 137 |
| Cards, cartridges, cassettes | 711 |
| **Typewriter ribbons** | |
| Correctable film | 32 |
| Multistrike film | –1 |
| Singlestrike film | –61 |
| **Word processor ribbons** | |
| Multistrike film | 1196 |
| Singlestrike film | 1277 |
| Fabric | 1950 |
| **Print elements** | |
| Ball type | –15 |
| Cup type | 200 |
| Daisy wheels | 137 |
| **Correction media** | |
| Cover up | –38 |
| Lift off | 25 |
| **Dictation supplies** | |
| Magnetic belt | –51 |
| Magnetic disc/cartridge | –1 |
| Standard cassette | 78 |
| Minicassette | 99 |
| Microcassette | 460 |
| **Copier supplies** | |
| Paper (plain) | 139 |
| Paper (thermal) | –23 |
| Paper (coated) | –41 |
| Dry toners and developers (plain-paper copiers) | 149 |
| Liquid toners and developers (plain-paper copiers) | 102 |
| Liquid toners and developers (electrofax copiers) | –42 |

## Latest scrap quotations



| | New | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 96.00 | 102.00 | 104.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 88.00 | 94.00 | 80.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 82.00 | 92.00 | 91.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.70 | 0.71 | 0.84 |
| Copper, No. 2, East wholesale buy, dlvd., lb. | 0.62 | 0.63 | 0.71 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.66 | 0.67 | 0.80 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.40 | 0.42 | 0.40 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.31 | 0.31 | 0.39 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.345 | 0.345 | 0.425 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.150 | 0.155 | 0.130 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.25 | 0.27 | 0.29 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 20.00 | 20.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 10.00 | 10.00 | 13.00 |
| Polyethylene scrap, lb | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.25 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No.2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.13 | 0.13 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.25 | 0.25 | 0.38 |

# Foreign dependence growing

Import dependence on crucial materials continues to grow—with two recent studies pointing up the seriousness of the situation.

The first, prepared by Bache, suggests the following percentages of U.S. needs that are being imported: antimony (53%), chromium (91%), cobalt (93%), germanium (11%), manganese (97%), rhodium (87%), tantalum (97%), and titanium (17%).

Equally disturbing is another report worked up by Simon Strauss, the chairman of the Minerals Availability Committee of the American Mining Congress. He notes that not only the United States but the entire industrialized West is now substantially dependent on either the Third World or the Eastern Bloc for many key metals.

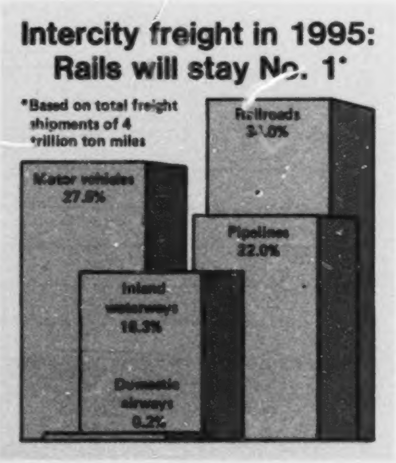
Here's how he figures output is divided among the three groups:

**Key minerals production**

| | Industrial West | Eastern Bloc | Third World |
|---|---|---|---|
| Copper | 36% | 21% | 43% |
| Iron ore | 39 | 34 | 27 |
| Lead | 47 | 31 | 22 |
| Manganese | 28 | 46 | 26 |
| Nickel | 38 | 30 | 32 |
| Tin | 7 | 24 | 69 |
| Tungsten | 29 | 45 | 26 |
| Zinc | 52 | 25 | 23 |

# Rails' growth seems assured

Don't count the railroads out. They'll continue to haul a substantial portion of the nation's overall freight over the next 15 years.


**Intercity freight in 1995: Rails will stay No. 1***

*Based on total freight shipments of 4 trillion ton miles

At least that's the forecast being made by Predicasts, a big Cleveland-based consulting and research firm. More to the point—railroads, which hauled 2.5 trillion ton-miles of freight last year, are expected to increase their total to near 4 trillion by 1995.

The equivalent of nearly a 3% average annual gain, this would seem to assure a continuing number-one position (on a ton-mile basis) for this transportation mode. Indeed, in terms of share, it suggests that slightly more than one-third of the nation's freight will continue to be shipped by rail.

All this is in sharp contrast to the past decade or so when the railroads' share of the freight pie dropped from near 42% (in 1967) to 35%.

One critical factor behind the steady 3% annual growth rate being projected is the exploration of the nation's coal resources—with the most rapid growth here expected in the late 1980s. By 1995, railroads are expected to carry nearly 70% of the nation's coal traffic.

But there are other factors behind the projected overall rail growth trend, too. Specifically, deregulation is expected to help substantially—as will increased grain shipments.

As might be expected, the projected showing will mean substantial purchases of new railroad equipment—enough to push the dollar value of such equipment sales to over $50 billion in 1995 (compared to only $11.8 billion last year).

Significant growth is seen for (1) freight cars, (2) maintenance-of-way equipment, and (3) rail material and supplies such as ballasts, rails, and crossties. *PW*

# Increasing use of foreign steel

Latest steel buyer and service center reports confirm the fact that imports are again beginning to play a more significant market role.

Some 88% of the purchasing managers responding to the latest NAPM steel buyers survey, for example, now say that overseas prices are under comparable domestic levels—with 12% dubbing the differences as substantial. Not surprisingly, some 15% are also contemplating more dependence on foreign metal over the next 3-6 months.

Steel distributors tell much the same story. Specifically, some 80% of Steel Service Center Institute (SSCI) members note lower prices on imported carbon steel—with 30% putting the price break in the relatively significant 10-20% range. And here, too, there has been a modest increase in those who expect to increase their dependency on overseas metal in the months ahead.

Here's a rundown of developments in other key steel marketing areas:

■ **Inventories:** Little basic change from the previous month is noted (see top chart). Although buyers managed to reduce their metal holdings slightly (to just over a 2-month supply), small increases were reported on the service center level.

But while the magnitude of holdings remained relatively unchanged, both groups feel that their inventory levels are still top heavy. On the buyer front, for example, nearly two out of every five respondents felt their stocks were "too high"—versus not a single PM who felt his tonnage was on the low side.

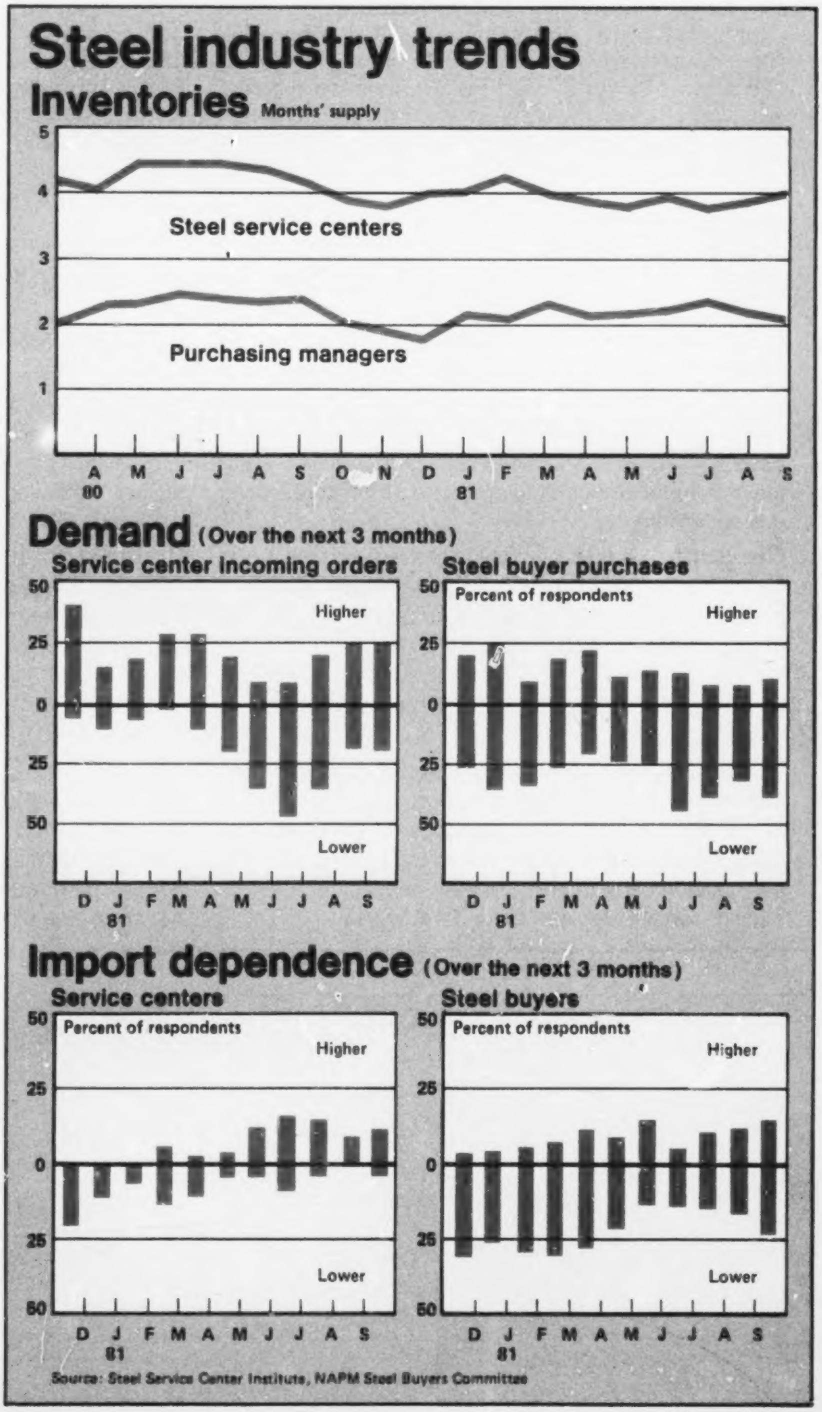
And the picture is similar for service centers—58% classifying inventory levels as too high with, again, not one single "too low" estimate.

These evaluations, in turn, suggest some further retrenchment ahead. The pertinent findings here: Roughly three out of every five buyers and service centers now comtemplate inventory reductions over the next few months.

■ **Demand:** This resolve to cut stocks stems in large part from the relatively poor outlook for steel consumption. In any event, far more buyers and service centers expect a nearterm slowdown rather than acceleration.

The situation is probably best summed up by Andrew G. Sharkey, SSCI president, who notes that there is much less optimism than a year ago. On a rosier note, he says that no one expects any sharp downturn and that the outlook for 1982 continues to be positive.

■ **Availability:** The "no sweat" situation of the past few months shows little sign of change. True, there are some exceptions, but they are relatively minor. Only two respondents—one on the service center level and the other a buyer—are experiencing problems in the steel bar area. Earlier bottlenecks in heat-treated metal also seem over—with only one buyer and two distributors reporting difficulties here. ***PW***



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

# Shorter leadtimes reported for fourth straight month

The current sluggish order pattern continues to make for a basically "no sweat" procurement situation.

That's not to say that a few leads haven't stretched out a bit. But these have been more than offset by better delivery performance in other areas—thus, continuing to keep ***PurchasingWorld's*** exclusive leadtime index under the neutral 50 level for the fourth straight month (see chart).

In any event, waits on more than one-third of the 158 product lines regularly monitored by ***PurchasingWorld*** are now under year-earlier levels. That's all in sharp contrast to the usual fall trend when a seasonal pickup normally results in some overall deterioration in vendor performance. Note, for example, the modest leadtime uptrend reported in late 1980.

Further confirmation of ready availability comes from the latest NAPM Business Survey Committee report which suggests that 17% of responding buyers are now experiencing faster deliveries. That's almost double the 9% who note some slippage over the latest 30-day period.

And as has been the case in recent months, the list of items in short supply remains quite slim—now limited to just oil-country tubular goods, seamless steel pipe, bearings, and caustic soda.

Not surprisingly, buyers continue to play their inventory cards close to the vest—with parers now outnumbering accumulators by a better-than-2:1 margin. Equally significant, nearly one out of three currently report reductions—the biggest such number in well over a year. ***PW***

## Leadtimes and availability

**Chicago:** Delays have narrowed for a few items—specifically with these new (lower) leadtimes in weeks: paper (1-3), PVC resins and powders (l), c-r steel sheet (4-5), h-r sheet (2-3), coated sheets (4-5), capacitors (4-6), and semiconductors (6-14)—with the upper end of the range in electronic items reflecting custom orders.

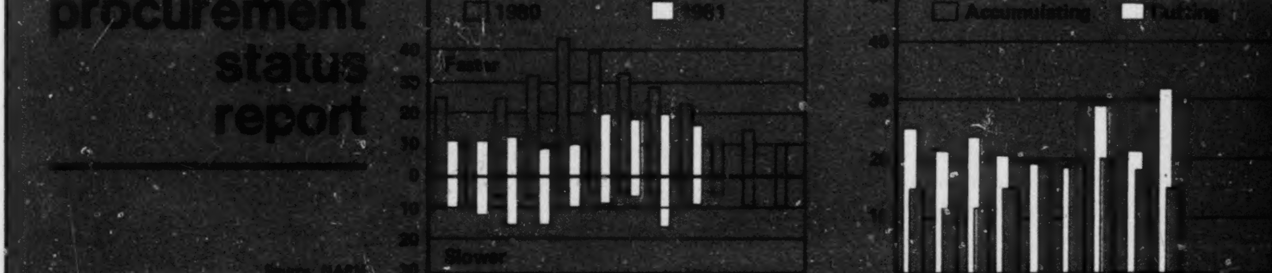
**Cleveland:** A few minor shifts this time around. Cold-finished aluminum is out a bit (to 14 weeks). And both polyethylene and PVC now require 3-4 weeks. On the other hand, coil-coating paint waits are down (to 3-4). Unchanged items include corrugated (3), folding cartons (4), steel canisters (6), lumber (3), and strapping (3).

**Houston:** Some narrowing is noted in structural steel (to 13-21 weeks) as fabricator business lags. Ditto, in mill steel (to 6-12) as mill backlogs decline. Chemical waits are a bit lower (to 2-4). And the same is possible for tungsten carbide parts as new capacity comes on. Plastics remain stable at around 4-8 weeks.

**Los Angeles:** Synthetic rubber is in a bit (to 2-3 weeks). So are nonclay fillers (2), PVC resins (2), paints (3), heavy-duty steel (9-10), aluminum pipe (8-12), and heavy copper tubing (13-17). But filler clay is out (to 4) as is heavy aluminum sheet (to 48-52). Unchanged are galvanized steel (10-12) and insulators (7).

**Philadelphia:** Steel leads remain unchanged—but some see reductions in plate over the next few weeks from the current 4-5 week wait. Cellophane has come in—to 4-6. But folding cartons are out to 6-8. No change in corrugated (1-3), foam packaging products (2-3), linear ICs (12), wood resin (13), and pumps and valves (17-20).

**Pittsburgh:** Leads remain relatively unchanged—with these typical waits (in weeks): multiwall bags (10-12), plastic bags (3-4), corrugated (3-4), standard steel drums (2-3), natural kraft paper (4-6), lumber and plywood (2-4), plastic packaging material (2-4), steel strapping (2-3), polyethylene and PVC (3).



# Leadtimes (in weeks)

## Steel

| | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chi) | 4½ | 5½ | 8½ |
| Plate (Phil) | 2½ | 4½ | 8½ |
| Plate (Chi) | 2 | 2 | 2½ |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chi) | 2 | 2 | 2½ |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 11 | 11 | 12 |
| Galvanized (Chi) | 4½ | 5½ | 8½ |
| Structurals (Chi) | 2 | 2 | 2½ |
| Structurals (Hous) | 17 | 30 | 30 |
| Tubing (Phil) | 10 | 10 | 10 |
| Greyiron Castings (LA) | 4 | 4 | 5½ |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 22 | 22 | 18 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chi) | 10½ | 10½ | 10½ |
| Capacitors (Chi) | 5 | 7 | 7 |
| Circuit Breakers (Chi) | 6 | 6 | 6 |
| Electro-Mech. Devices (LA) | 9 | 9 | 10 |
| IC's (Linear) (Phil) | 12 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors 1000 HP & up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chi) | 6 | 6 | 6 |
| Relays (Chi) | 12 | 12 | 12 |
| Resistors (Chi) | 8 | 8 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chi) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pitts) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chi) | 2 | 2 | 2½ |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | ⅕ | ⅕ | ⅕ |
| Softwood (Pitts) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pitts) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pitts) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pitts) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 7 | 7 |
| Plastic Bags (Pitts) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pitts) | 3 | 3 | 5 |
| Shrink Film (Chi) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pitts) | 7 | 7 | 3½ |
| Drums, Steel Stand (Pitts) | 2½ | 2½ | 2½ |
| Wood Pallets (Chi) | 2½ | 2½ | 5 |
| Wirebound Boxes (Pitts) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pitts) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | ½ | ½ | ½ |
| Naphthalene (Chi) | 2 | 2 | 2 |
| Paint (LA) | 3 | 4½ | 3 |
| Paint, Coil Coating (Pitts) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 4 | 2½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 2½ | 2½ |
| Polyethylene Resin (Pitts) | 3 | 3 | 3 |
| PVC Resin (Chi) | 1 | 2 | 2 |
| PVC Resin (Pitts) | 3 | 3 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

## Paper

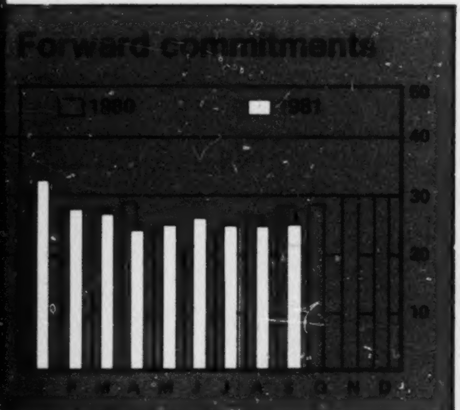
| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pitts) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pitts) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pitts) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pitts) | 5½ | 5½ | 5½ |

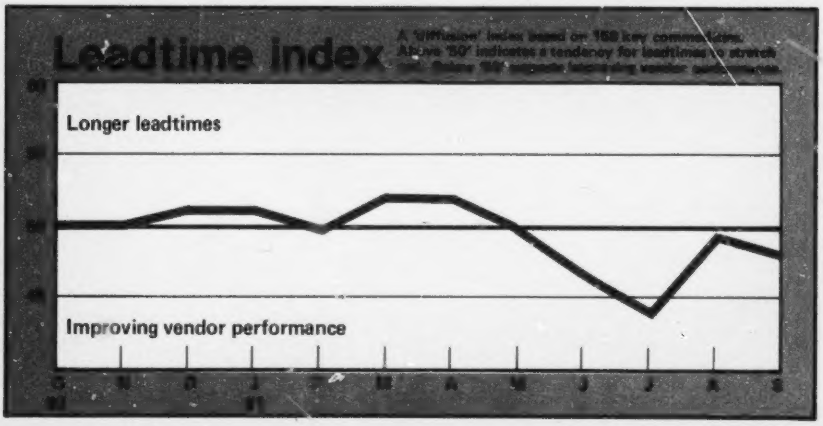
## Nonferrous

| | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chi) | 8 | 8 | 10 |
| Aluminum Plate (Chi) | 8 | 8 | 10 |
| Aluminum Sheet (LA) | 11 | 11 | 13 |
| Aluminum Sheet (Chi) | 8 | 8 | 11 |
| Brass Castings (LA) | 7 | 7 | 8 |
| Brass Rods (Chi) | 10 | 10 | 10 |
| Brass Sheet (Chi) | 9½ | 9½ | 9½ |
| Brass Tube (Chi) | 9 | 9 | 9 |
| Copper Fittings (LA) | 7 | 7 | 8 |
| Copper Mill Prod. (Pitts) | 6 | 6 | 6 |
| Copper Tube (LA) | 7 | 7 | 8 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pitts) | 3 | 3 | 3 |
| Magnesium (Pitts) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pitts) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pitts) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 7 | 7 | 8 |
| Zinc (Pitts) | 2 | 2 | 2 |

## Miscellaneous

| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chi) | ½ | ½ | ½ |
| Fasteners (LA) | 4½ | 4½ | 6 |
| Fasteners, Standard (Phil) | 3½ | 3½ | 3½ |
| Meat Exchangers, Carbon-Alloy Steel (Hous) | 41 | 41 | 41 |
| Heat Exchangers, Hi-Pressure (Hous) | 41 | 41 | 41 |
| Insulation Mat'l. (LA) | 7 | 7 | 6 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chi) | ½ | ½ | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 11 | 11 | 9 |
| Rubber, Synthetic (LA) | 1½ | 2 | 2 |
| Rubber Hose (LA) | 6½ | 6½ | 7 |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

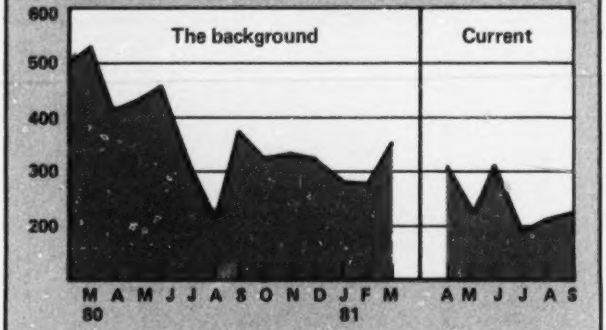




## Leading indicators

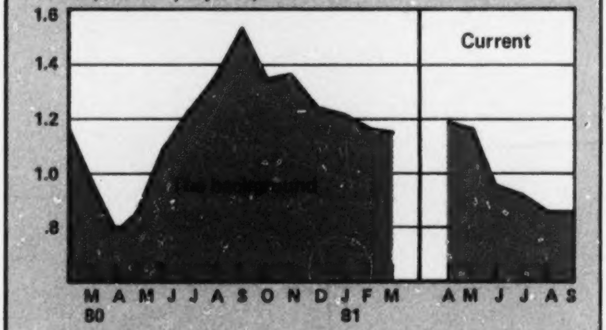
### 1. Machine tool orders

Millions of dollars



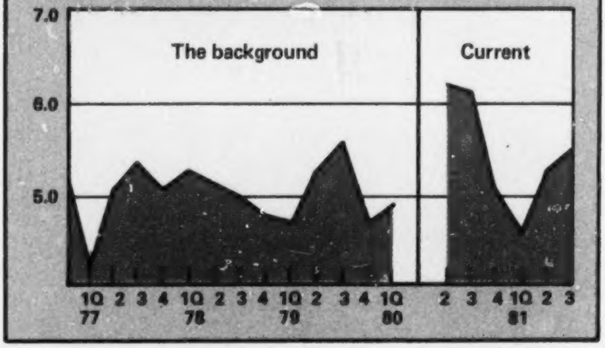
### 2. Housing permits

Millions, seasonally adjusted, annual rate



### 3. Savings rate

Percent



**Business in brief:**

# Early 1982 upswing is unlikely

Hopes for a fast 1982 start are fading fast.

One reason is that leading business indicators—those that signal production and sales 2-3 months down the pike—can hardly be characterized as bullish. Uncle Sam's composite barometer has been edging down for several months running—and the NAPM Business Barometer (see graph) is down at near 45.

Still, it's nowhere near as low as during the 1974 recession when this key yardstick of future activity was down close to the 30 level. But the current lackluster performance would seem to rule out any really significant near-term improvement in the overall business climate.

Today's sky-high interest rates are still another factor to reckon with. And even if the cost of money does start edging lower, it will be at least another several months before this will translate into higher construction and consumer buying activity.

In part, this is due to the high interest rates. But another factor is today's low factory utilization rates—currently pegged at only 79%. That's the lowest reading in over a year and more than 10 full points under preferred levels.

And if equipment orders can be said to be disappointing, the housing situation can only be described as a disaster. Take housing permits—a lead indicator of starts. As of latest report, the figure was near 900,000 units on a seasonally adjusted annual basis (center chart)—a far cry from the 1.4-1.5 million level of just a year ago.

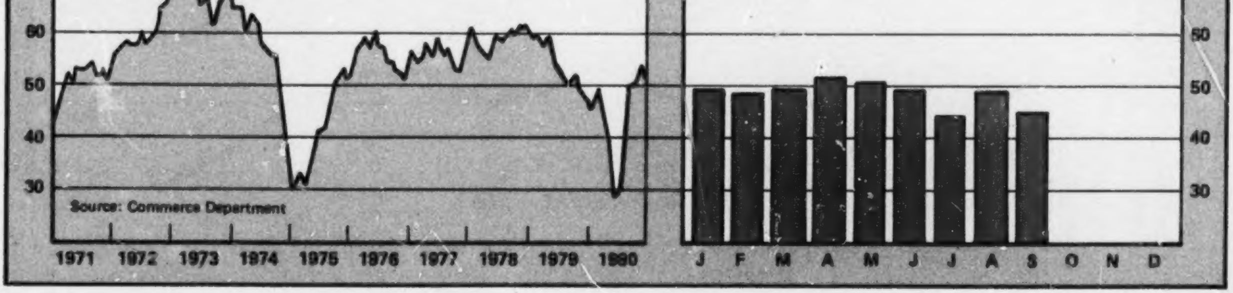
Then there's the consumer. The typical family has become a little more cautious. And while the current savings rate—pegged at roughly 5½% of take home pay (bottom chart)—isn't overly excessive, it's hardly the stuff that booms are made of.

Things could get a bit better, but current statistics don't suggest any serious downturn either—not with the huge backlog of pent-up consumer demand and the surprisingly good shape of business inventories.

Upshot: Look for another 3-6 months of backing and filling—with the long-awaited recovery pushed ahead until sometime next spring. ***PW***

## NAPM business barometer

Based on five monthly indicators (employment, inventories, new orders, production, vendor performance)



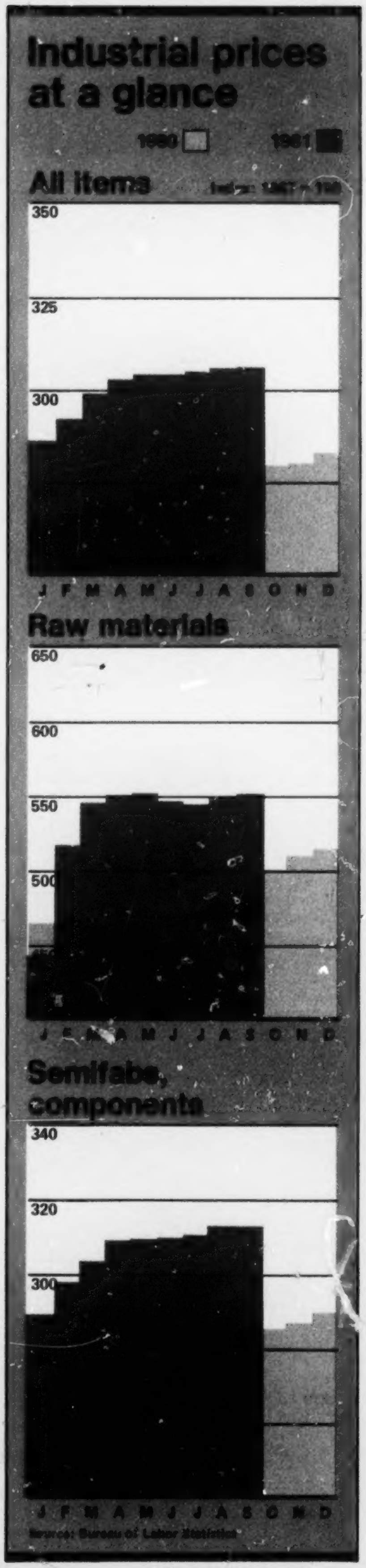
# Prices lowest in years

Industrial producer prices continue to take a breather—with the rate of advance now at the lowest level in several years. Equally significant, most economists expect the trend to persist—putting advances in the 6-8% annual rate through early winter.

That's not to say, of course, that everything is coming up roses. In the energy sphere, for example, natural gas hikes remain far too high for comfort. But here, as elsewhere, there is some offsetting good news, with declines reported in residual oil, gasoline, diesel fuel, kerosene, and even gasoline.

Much of the same improving, though checkered, pattern is noted in other sectors. While overall capital equipment remained unchanged, for example, there were some modest boosts in heavy motor trucks, material handling equipment, metal forming tools, and mining machinery.

But the inflation lull is perhaps most pronounced in raw materials—with declines hitting many nonferrous metals, lumber, gypsum, and organic chemicals. The failure of plastic resins to rise very much—despite substantial hikes in lists—also has to be regarded as encouraging. **PW**



## Industrial prices at a glance

Source: Bureau of Labor Statistics

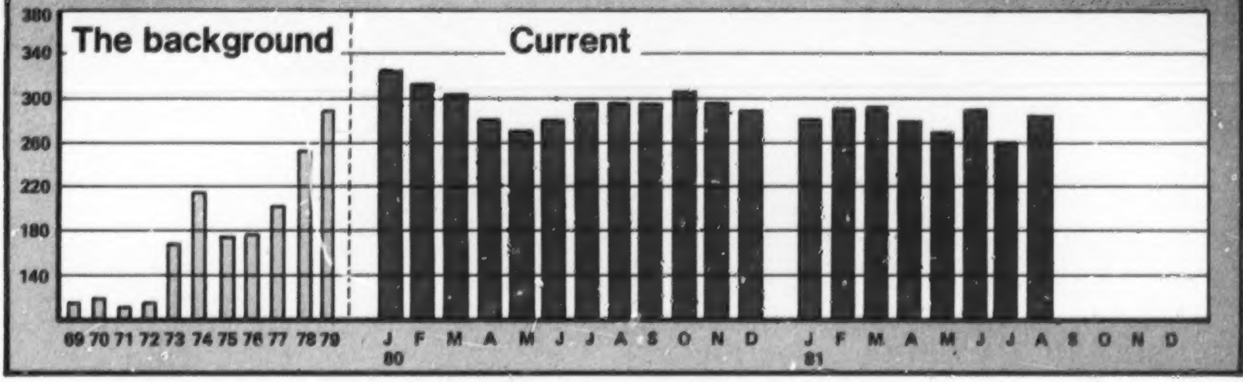
## This month's breakdown

| | Latest level (June) | Percent change from: Month ago | Year ago |
|---|---|---|---|
| Bearings | 318.0 | 0.7 | 15.3 |
| Bolts, nuts, etc. | 267.2 | 0 | 8.8 |
| Chemicals, inorganic | 298.4 | 1.7 | 18.7 |
| Chemicals, organic | 408.2 | –0.7 | 11.5 |
| Concrete products | 292.9 | 0 | 6.6 |
| Cutting tools, small | 268.5 | 0 | 9.7 |
| Electrical instruments | 242.8 | 0.7 | 15.5 |
| Electric lamps (bulbs) | 276.8 | 1.2 | 8.9 |
| Fans and blowers | 328.4 | 1.0 | 8.3 |
| Fittings, industrial | 304.3 | 0.4 | 2.1 |
| Foundry and forge products | 334.1 | 0.7 | 8.1 |
| Fuel oil (residual) | 1187.7 | –4.7 | 24.2 |
| Furniture, commercial | 261.5 | 0.9 | 10.0 |
| Gasoline | 725.8 | –0.1 | 11.9 |
| Glass, flat | 218.8 | 0 | 9.8 |
| Glass containers | 334.8 | 0 | 13.8 |
| Gypsum products | 252.9 | [illegible] | [illegible] |
| Hand tools | 319.8 | 0.9 | 12.8 |
| Hand tools, power driven | 213.4 | 0.2 | 9.1 |
| Industrial furnaces | 332.6 | 0.2 | 10.6 |
| Integrating and measuring instruments | 203.1 | 0.3 | 8.7 |
| Internal combustion engines | 311.6 | 2.2 | 13.1 |
| Lubricating oil | 586.1 | –1.4 | 12.1 |
| Lumber millwork | 271.3 | –0.4 | 2.8 |
| Material handling equipment | [illegible] | 0.6 | 10.1 |
| Metal containers | 319.6 | 0.1 | 5.4 |
| Metal mill shapes | 307.2 | –0.1 | 6.1 |
| Metal tanks | 311.2 | 0.9 | 8.2 |
| Motors and generators | 307.2 | 0.2 | 12.4 |
| Motor trucks | 254.7 | –2.0 | 11.2 |
| Office and store equipment | 149.0 | 0.1 | 5.2 |
| Paperboard | 282.5 | 0.5 | 9.8 |
| Paper boxes and shipping containers | 249.4 | 0.3 | 10.3 |
| Paper office supplies | 219.0 | 0.4 | 8.2 |
| Paint | 261.0 | 0 | 4.9 |
| Plastic resins | 285.5 | 1.0 | 8.0 |
| Precision measuring tools | 225.1 | 0.1 | 8.1 |
| Pumps and compressors | 333.1 | 0.5 | 12.9 |
| Refractories | 308.0 | 0 | 13.3 |
| Rubber belts and belting | 297.7 | 1.0 | 10.1 |
| Scales and balances | 221.3 | –0.2 | –1.3 |
| Steel products | [illegible] | 0.1 | 14.8 |
| Switchgear | 248.3 | 0.2 | 8.8 |
| Textiles, synthetic fibers | 182.3 | 0.2 | 10.3 |
| Textiles, gray fabrics | 148.1 | –0.1 | 5.0 |
| Tires and tubes | 256.5 | 2.2 | 9.9 |
| Transformers and power regulators | 314.2 | 0.3 | 13.2 |
| Valves, industrial | 319.3 | 0.9 | 9.2 |
| Welding equipment | 288.7 | 0.8 | 8.6 |
| Wire and cable | 208.9 | 0.5 | –3.2 |

# PW raw material price barometer

Index: 1967 = 100

**Latest month 285.7**
**Month before 289.4**
**Year ago 300.8**



# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 21.65 | 21.65 | 18.90 |
| Steel, structural shapes, Chi., cwt. | 21.65 | 21.65 | 18.90 |
| Steel, structural shapes, Los Angeles, cwt | 22.15 | 22.15 | 19.40 |
| Steel bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 15.50 |
| Steel, bars, Pitts., cwt. | 14.35 | 14.35 | 15.50 |
| Steel, bars, C.R., Pitts., cwt. | 29.20 | 29.20 | 30.60 |
| Steel, plates, Chi., cwt. | 23.25 | 23.25 | 20.70 |
| Steel, plates, Pitts., cwt. | 23.25 | 23.25 | 20.70 |
| Steel, sheets, H.R., Pitts., cwt | 20.80 | 20.80 | 18.45 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 21.90 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 27.00 |
| Steel, basic wire Pitts., cwt. | 25.96 | 25.96 | 21.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | .76 | .76 | .76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cast ingot, lb. | 4.11 | 4.11 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.23 | 1.25 | 1.29 |
| Brass, yellow, [sheet], lb. | 1.17 | 1.19 | 1.24 |
| Cadmium, ion lots, lb. | 1.60 | 1.75 | 2.50 |
| Copper, electrolytic, wire bars, refd., lb. | .82 | .85 | .90 |
| Copper sheet, over 24 in., lb. | 1.32 | 1.34 | 1.39 |
| Lead, common, N.Y., lb. | .38 | .40 | .45 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 422.00 | 445.00 | 395.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.25 | 8.25 | 9.00 |
| Nickel, electrolytic, producer, lb. | 3.50 | 3.50 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 9.29 | 9.55 | 21.15 |
| Tin, Straits, N.Y., lb. | 7.82 | 7.85 | 8.48 |
| Zinc, Prime West, East St. Louis, lb. | .463 | .493 | .375 |
| Zinc, die casting alloy, No. 3, lb. | .528 | .558 | .425 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | .440 | .440 | .375 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.54 | 1.60 | 1.60 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 17.50 | 17.50 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | .66 | .66 | .54 |
| Formaldehyde, USP, 37%, [2% to 5% meth.], tanks, lb. | .101 | .101 | .072 |
| Glycerine, synthetic, tanks, lb. | .805 | .805 | .710 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | .345 | .345 | .325 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | .795 | .795 | .710 |
| Naphthalene, crude, tanks, lb. | .220 | .205 | .205 |
| Phthalic anhydride, tanks, lb. | .420 | .420 | .375 |
| Polyethylene resin, high-pressure molding, carlots, lb. | .45 | .45 | .41 |
| Polypropylene, G-P injection molding, lb., railcar shipment | .50 | .50 | .36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | .53 | .50 | .46 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | .375 | .375 | .358 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 140.00 | 127.50 |
| Sulphuric acid, 66°, commercial, tanks, ton | 93.69 | 93.69 | 77.25 |
| Titanium dioxide, anatase, reg., carlots, lb. | .69 | .63 | .57 |
| Xylene, tanks, gal. | 1.48 | 1.48 | 1.43 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. sulfite, water marked, 20-bl., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. Grade | 45.50 | 45.50 | 44.30 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 21.00 | 21.00 | 21.00 |
| Kraft linerboard, 42 lb. unbleached, ton | 300.00 | 300.00 | 270.00 |

## Buildihg materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 325.61 | 335.01 | 334.03 |
| Lumber 2x4, pine, mbf, cl | 296.23 | 302.77 | 308.37 |
| Plywood, plyform, 3/4", msf, cl | 590.80 | 597.80 | 579.53 |
| Plywood, 5/8", msf, cl | 349.64 | 355.88 | 365.99 |
| Cement, bulk, ton, tl | 61.19 | 60.24 | 59.01 |
| Sand, ton, cl | 6.08 | 6.05 | 5.71 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd | 45.01 | 45.06 | 41.87 |
| Crushed stone, 1½", ton, cl | 7.50 | 7.50 | 6.91 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.68 | 0.68 | 0.66 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 147.04 | 148.04 | 135.79 |
| Brick, common, per thousand, tl | 163.76 | 163.70 | 153.40 |
| Asphalt paving, AC-20 | 169.63 | 172.13 | 122.29 |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.63 | 6.57 | 6.23 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | .254 | .254 | .313 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.01 | 1.02 | .99 |
| Cotton middling, 1", N.Y., lb. | .603 | .625 | .856 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | .84 | .85 | .65 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.61 |
| Blended printcloth, 64", 78x54, yd. | .77 | .76 | .75 |
| 20s combed yarns | 1.85 | 1.85 | 1.77 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi, lb. | .48 | .47 | .48 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | .465 | .525 | .790 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 23.25 | 23.25 | 22.00 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 32.77 | 32.77 | 30.80 |
| Gasoline, 91 oct., reg., Los Angeles, rack., gal. | 1.045 | 1.040 | .899 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 1.003 | 1.010 | .899 |
| Heating oil, No. 2, Chi., bulk, gal. | .960 | .970 | .794 |
| Heating oil, No. 2, N.Y., bulk, bbl. | 101.30 | 101.30 | N.A. |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 24.25 | 23.00 | 20.50 |
| 45 wt. diesel, Gulf, spot, gal. | .898 | .898 | .775 |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | .44 | .44 | .41 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

Circle 183 on card

-1 C 8650-2

December 1981

# PurchasingWorld®

1912 14 2906451 11 W16 1
COPY ONE
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Steel demand** will show only a modest rise next year, remaining below the 100-million-ton level of 1979 (p. 10).

**Petrochemical demand** will outpace general economic growth for the next few years, keeping upward pressure on prices (p. 55).

**Plant maintenance** and replacement costs are skyrocketing with a soaring 14% increase seen for 1982 (p. 112).

## How American Hoechst coordinates materials

**—page 60**

William L. Grabowski, vice president, materials management, for American Hoechst Corp., coordinates the materials function in 13 different units of a growing company. His centralized-decentralized approach takes advantage of opportunities in purchasing and distribution at all levels. To learn how he does it, turn to our cover article.

**Specialty steels: the age of custom composites—page 35**

PurchasingWorld® Vol. 25, No. 12 - December 1981

## *Helping you manage the business of buying*

**Editorial Staff**

Editor
Richard L. Dunn

Executive Editor
Robert S. Reichard†

Managing Editor
Paul V. Farrell†

Technical Editor
John Fitts

Management Editor
Lea Tonkin

Production Editor
Teri Preston

Art Director
Richard Trefilek

Assistant Art Director
Robert Fry

**Consulting Editors**

Economics and Government
Dr. Louis J. Paradiso

Purchasing and the Law
Dr. John E. Murray, Jr.

Value Analysis
Lawrence D. Miles

Materials Management
Ernest C. Huge

Negotiating
Louis DeRose

Transportation
Dr. Leon Wm. Morse

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing

DB a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington. Ill 60010
Phone: 312—381-1840

8 **PMs expect prices to rise 9% in the coming year.** Demand and cost pressures will make 1982 a tough negotiating year, says PMs responding to a ***PurchasingWorld*** survey.

35 **In specialty steels, it's the age of composites.** Pre-alloyed metal powders are giving specialty steel producers the capability to tailor their products for highly specific applications.

39 **Cost indexes help time buys.** By projecting product-specific indexes, purchasing managers get a better idea of when to place orders.

42 **Supplier value analysis workshop draws good response.** Creative approaches to cost control can pull in good results for buyers, especially when suppliers are partners in the plan.

55 **Hefty advances projected for petrochemical prices.** Prices could be a problem for buyers as better market balance and still-rising crude oil makes for some sizeable increases.

56 **Who makes what in office electronic typewriters.** The features and capabilities of office electronic typewriters are dazzling. This article can help you choose the machines best-suited to your needs.

60 **Mutual respect is critical in multidivisional buying.** Coordinating the materials function in a growing company isn't easy. American Hoechst is tackling the job with a centralized-decentralized approach that provides opportunities at both levels.

## *Around the purchasing world*

10 **PW Predicts**
17 **PW Perspective**
21 **Washington Perspective**
22 **Purchasing and the Law**
24 **Effective Negotiating**
29 **Materials Management Close-Up**
33 **Principles of Value Analysis**
65 **Freight Newsbriefs**
68 **Labor Perspective***
70 **Product Briefs**
80 **NAPM Perspective**
84 **Transportation Briefing**
88 **Product Information**
93 **Pro-D/Management Briefs**
102 **SSCI Survey of Business Conditions***
109 **International Perspective**
110 **Price Perspective**
112 **Latest Scrap Quotations**
114 **Procurement Status Report**
116 **Business in Brief**
118 **Industrial Prices at a Glance**
120 **Raw Materials Price Barometer**

* Metalworking edition

ABP
BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $36/year; Canada $42/year. Foreign subscriptions are available for £65 airmail or £35 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. Copyright © by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation. A company of the Dun & Bradstreet Corporation, 1981—All Rights Reserved.

ISSN 0093-1659

# PMs expect prices to rise 9% in the coming year

Price pressures could well begin to accelerate in the months ahead.

In any event, very few of the PMs queried in a ***Purchasing World*** survey expect the current lull to last—adding that discounts should also begin to narrow before too long.

To be sure, only a minority of responding purchasing executives expect any return to the hefty double-digit increases of last year (see chart). But most are pretty much convinced that demand and cost pressures will make 1982 a tough negotiating year.

Some of their key projections:

- **Overall price trend:** The average 1982 increase for material purchases is put at around 9%—somewhat under the estimated 8% or so 1981 advance. Also worth noting on this score: Some 45% now expect to be socked with bigger 1982 boosts—nearly double the 25% who are hoping for further deceleration. About 30% see little overall change.
- **The big 1982 increases:** The list of products where substantial advances are anticipated next year includes steel, copper, aluminum, lead, refined petroleum products, petrochemicals, plastic resins, natural gas, forgings, bearings, lumber, machine tools, and MRO supplies.
- **Where moderation is predicted:** Balancing out the big increases are these areas where increases are expected to lag the average price advance: electronics, stainless steel, heavy equipment, corrugated cartons, metal fabrication, transportation, fasteners, and lumber.
- **Why the anticipated acceleration:** As suggested in the chart, a series of factors will be contributing to the expected upward price pressure. Especially strong pressure is expected from energy and interest rates. But on a more optimistic note, labor's contribution may be somewhat weaker than it recently has been.
- **The role of imports:** A substantial 35% of the respondents say they'll be relying a bit more on imports as a price-rise inhibitor—with several noting that the strong dollar has made incoming shipments a lot more attractive in such key areas as steel and equipment.
- **Price protection:** Another increasingly popular tack is to press for guaranteed prices over a fairly long period of time. Thus, the survey suggests that a substantial number of respondents are now managing to lock in prices for six months or even longer.

A Midwestern buyer tells of a variation on the price guarantee approach—one which calls for a fixed price over the first year with a cap put on any increase over the subsequent 12-month period.

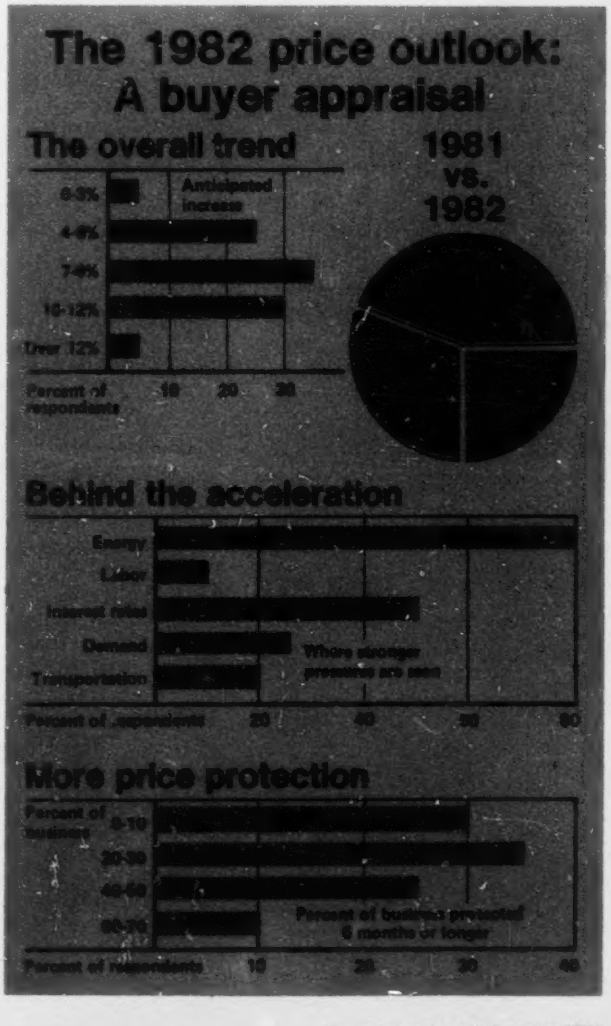
Many are also working a lot closer with their vendors. And it sometimes goes beyond just seeking new cost-cutting ideas. One purchasing manager, for example, tells of joint meetings with his suppliers in an effort to improve vendor productivity—adding that it already has paid off in a few instances.

Then there are the usual time-tested ploys—more overseas procurement, competitive bidding, value analysis, and longer-term contracts. An increasing number of respondents now also demand cost-justification before okaying any major price increase.

Transportation is getting a closer going over these days. Taking advantage of the recently deregulated market, buyers say they're doing a lot more negotiating. Consolidation of small shipments, which have become increasingly expensive, is another approach that seems to be paying off here.

Finally, a few big buyers of basic raw materials are taking a good hard look at metals and other futures markets. While clearly risky unless it's done by a pro, they say the hedging protection is something that can no longer be ignored in today's volatile markets.

A purchasing vice president of a large equipment firm sums it all up: "Prices will be rising again next year no matter what the Reagan Administration says and does. But with supplies likely to remain ample, or even more than ample, I think we can still have some control over the extent of the rise. Right now, we're shooting for about a 7-9% increase—roughly about the same experienced over the past year." ***PW***



# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Heavy discounting for nickel to continue

Nickel markets continue to sag, with no sign of any nearterm turnaround.

Burdened by disappointing demand, excess capacity, and high inventories, producers are said to be offering the alloying and plating metal to large steel mills for as little as $2.90/lb—a sharp 55¢/lb under the official industry list.

And if you zero in on merchant markets, the situation is even more bearish. Spot metal, for example, has dropped below the $2.50/lb mark in recent weeks—with lime tags down at even lower levels.

Adding to the problem are recent Red Bloc exports. Some industry watchers estimate that the Russians and Cubans may be supplying the Free World with an additional 80-90 million lb a year. Then, too, there's the ready availability of inexpensive stainless scrap which many steel mills use to supply 50% or more of their charge.

Free World consumption estimates highlight the metal's uses. This year, for example, global use is expected to drop slightly under the already disappointing 1.15-billion-lb level of 1980.

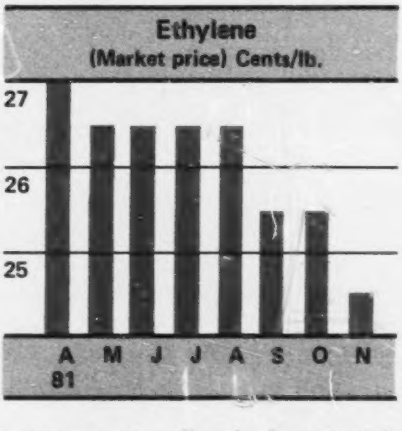
And the buyers' market is expected to continue for a while. Specifically, despite the 3½-4% annual growth rate currently being projected by the industry, excess capacity looks to remain a big problem—at least through the mid-1980s. Worth noting: Production potential already in place is estimated at near 1.5 billion lb.

### Aluminum

Production cutbacks are spreading, with U.S. producers now operating at under 80% of their potential. And overseas producers are beginning to take the same tack—with good reason. Free World stocks have climbed some 60% above yearago levels. Prices, meantime, remain soft—with free-market ingot going for under 55¢/lb—more than 20¢/lb under the going producer list. There's plenty of discounting in fabricated metal areas, too. Moreover, recovery is likely to be slow—with ingot lists here in the U.S. hard put to even reach 80¢/lb by late next year. There should also be plenty of metal to go around for years—as only 3-5% average annual consumption gains are substantially offset by capacity hikes on the order of 2-3% a year.

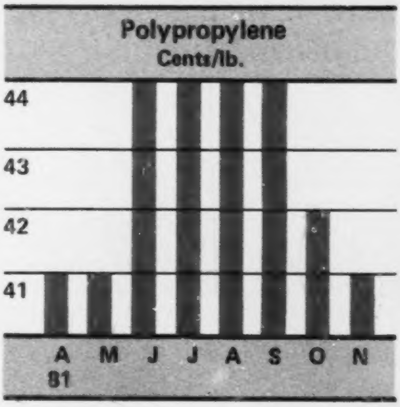
### Ethylene

Prices continue to sink with some quotes in recent weeks put as low as 23½¢/lb—some 2¢/lb under recently reduced lists. Behind the easiness: growing inventories, which are put by some observers as high as 3½ million tons. Meantime, the industry continues to operate well under its potential, keeping utilization rates in the low 70% range. And little improvement is seen until such major downstream products as VCM, ethylene dichloride, and styrene pick up. And don't expect today's low prices to last forever. By late next year, if demand improves as expected, prices should be edging up into the 28-29¢/lb range.



### Polypropylene

This workhorse plastic is on the skids, with a recent 2½¢ lb price-boosting attempt failing to hold. Indeed, there have been recent reports suggesting that the general-purpose grade is available for as low as 40¢/lb—a hefty 20% under the prevailing 50¢/lb list. But the longterm prognosis is considerably more bullish because capacity will not be expanding to any great extent over the next few years. As such, look for substantial price firming by late 1982 or 1983. In the latter year, the industry could be operating in the 80-83% range—enough to push tags up to near 50¢/lb.



### Copper

Sagging auto and construction markets will keep prices on the shaky side, nearterm. But the basic supply-demand fundamentals aren't all that bearish—as Free World inventories remain only about 20% above normal. That's a far cry from a few years back when stocks ran 2½ times above normal levels. This better balance, in turn, suggests some fair-sized price hikes once demand starts to pick up. Mining costs also will dictate significantly higher tags over the long run as most producers struggle to stay above the breakeven point. Best bet: about a 4-6¢/lb increase by mid-1982, with prices possibly rising cost to the $1/lb mark by yearend if the economy picks up as expected.

### Lead

Markets remain soft as consumers continue to sit on the sidelines. Indeed, quotes could well edge a bit lower in the weeks immediately ahead. To be sure, there could be some firming by early 1982 if the winter turns out to be a lot colder than normal (thereby spurring battery demand), or if the Reds step up their Free World purchases. But both of these are "iffy" factors. As such, any sustained rally based on supply-demand fundamentals will have to wait until later in 1982. And even then, advances will probably be modest—with the metal likely to remain below 40¢/lb for at least another 3-6 months.

### Corrugated cartons

Higher prices seem inevitable by early next year if linerboard producers are successful in raising their quotes. Demand, too, should begin to pick up a bit in 1982—though earlier industry forecasts calling for a 4-5% advance in overall box shipments seem unrealistic given currently toned-down GNP forecasts. In any event, be prepared to start paying as much as 8-10% more for your boxes next year at this time as linerboard operations move closer to full-capacity levels.

### Machinery

Press for concessions in machine tools and other types of capital equipment. Reason: Orders and backlogs are falling, and sellers are eager to nail down a sale. Sign of the times: Metalworking machinery tags now run only about 8-9% above a year earlier—about 2-3 percentage points under the advances of the previous four quarters. And the buyers' market is likely to continue. New surveys, for example, point to a relatively flat 1982—with corporate purchases in real terms remaining close to currently depressed levels.

### Polyvinyl chloride

Buyers are now firmly in the saddle. And while there has been no change in list tags (currently in the 34¢/lb range), market or transaction quotes continue to weaken—with the general-purpose grade recently slipping another 2-4¢/lb, bringing the going quote into the low 26-28¢/lb range. Much of the easiness stems from poor demand from the housing market—the resin's key customer. But another factor could be low VCM tags, currently in the 17¢/lb range.

### Nylon carpet yarns

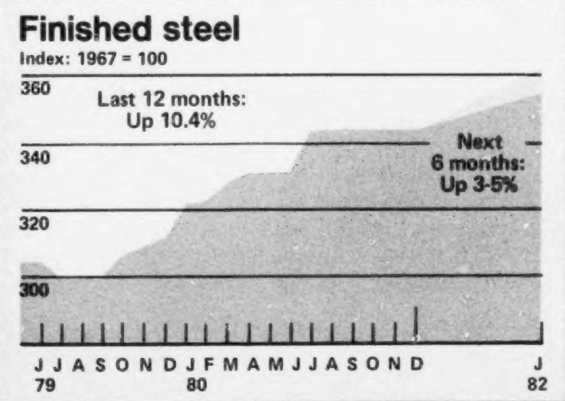
A decline in demand and operating ratios is taking its toll—dropping

## The steel price scene

**CURRENT SITUATION: A lackluster fourth quarter suggests shipments of only 20 million tons**—actually a bit under the previous quarter's 21-million-ton level. As such, domestic mills will be hard put to hit 89 million tons for the year as a whole—down significantly from the earlier 94-million-ton projections but still considerably above last years 84-million-ton reading. These disappointing levels (coupled with increasing import competition) are also making for soft pricing—**with substantial discounting recently reported in sheet, plate, wire rod, and a host of other products.**

**DEMAND: Improvement next year will be relatively modest.** If you "buy" projections for a 2 - 3% increase in real GNP, then **domestic billings will rise only into the 93-94 million-ton range.** Biggest gains are likely to come from the auto and construction markets if interest rates ease as expected. Oil country goods should also continue to move well. **But imports will be a restraining factor**—with as much as 17-18 million tons expected to enter the country again.

**SUPPLY: Operating rates—currently in the low-70s range—tell the story.** Nor is any quick bounce-back to preferred levels indicated—not if the above demand projections are anywhere near correct. **About the only problems now are in oil country goods—and even these are manageable with imports.** The expectation of about a 4% increase in mill capacity this year would also seem to rule out any nearterm tightness. On the other hand, a booming economy could make for **some snugness by early 1983.**



**PRICE OUTLOOK: Cost pressures virtually dictate increases.** But they'll be relatively modest nearterm, as substantial discounting and import competition continue to take some of the sting out of higher lists. **Best bet: about a 3 - 5% increase in average tags over the next six months—with somewhat bigger advances in the second half of 1982** as demand begins to pick up steam. And by 1983, increases could well edge up into the double-digit range—with averages that year likely to move up as much as 10-12%.

prices about 5¢/lb in both BCF and nylon staple. And another 5-10¢/lb decline can't be ruled out over the next few months as demand remains low and feedstock cost pressures ease up. But recovery is likely in 1982 as the crucial housing market begins to recover. As such, BCF and staple could average out next year at $1.60/ and $1.30/lb, respectively, with even higher prices likely in 1983 when housing should again be in a strong uptrend.

### Cobalt

A sharp drop in merchant prices (into the $10-14/lb range) is putting pressure on producer tags. The reason for the decline isn't too hard to find: Producer stocks have sailed to 18,000 metric tons—the equivalent of about 11 months of production. And more U.S. potential is on the drawing boards. But any drop under the $10/lb level may be avoided as producers begin to cut production (Zaire, for example, is scheduling a 33% cut). The industry is also hoping for GSA purchases—for in order to meet current stockpile goals, Uncle Sam will have to purchase some 40 million lb of the metal.

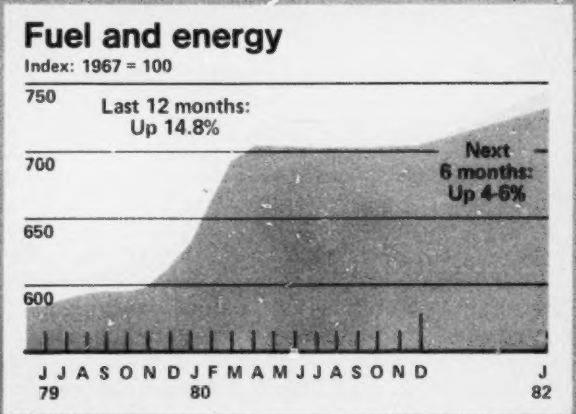
### Zinc

Demand from the steel and hot-dip galvanizing sectors has dropped off substantially. All in all, it's been a disappointing year throughout the Free World—with 1981 consumption remaining little changed from last year's low levels. And the outlook for the coming year isn't all that bullish either. True, Free World consumption could rise as much as 3-4% in 1982. But production will be rising even faster—helping to keep a lid on prices. On the other hand, exports to the Soviet bloc should keep concentrate markets fairly tight. And worth noting: This should permit a slow price rise—particularly after mid-1982 when quotes should again edge above the 50¢/lb level. ***PW***

## The energy price scene

**CURRENT SITUATION: It's been a surprisingly good second half—with prices remaining virtually stable** — in sharp contrast to the first six months of the year when overall tags jumped a whopping 14½% (or 29% at annual rate). Behind the respite: A global oil glut which shows every sign of spilling over into winter and early spring. **About the only exception has been natural gas**—where gradual decontrol continues to make for some king-sized price hikes.

**DEMAND: The combination of the price runup of the past few years and a lackluster economy is taking its toll.** This year, for example, **oil use will be** off 4%. And even with modest business recovery in 1982, the increase will come to only 3%. A similar picture is seen for **natural gas** where only a 1% boost is seen for 1982. **Electricity** will also show only a modest 1982 gain—something in the order of 3%. On the other hand, **coal use** is expected to rise—as a shift away from other energy sources raises domestic demand to almost 775 million tons—up about 4½% from 1981 levels.



**SUPPLY: No sweat in the crucial oil area—barring, of course, any new Middle East blowup.** A growing petroleum stockpile is also an encouraging sign here. **Coal capacity, too, seems more than adequate**—though inventories (drawn down by the recent 72-day miners' strike) will have to be replenished. As for natural gas, production could actually fall fractionally—with any shortfall being made up through higher imports.

**PRICE OUTLOOK: Moderation is expected to continue through 1982 except for natural gas.** Here are some recent Department of Energy projections based on the assumption that crude oil will move up in line with the general inflation rate: **Gasoline** up only 4% for year as a whole—with the average 1982 quote put at $1.41/gallon; **No. 2 heating oil** up 4½% on the wholesale level to an average price of $1.029/gallon; **No. 6 residual oil** down 3½% on the retail level to $32.15/bb1; **utility coal** up 11% to $1.657/ million BTU; **utility gas** up 17% to $3.261/million BTU; **electricity** up 4½% to 6.24c/kwh.

# Cost indexes help time buys

## By projecting product-specific indexes, purchasing managers get a better idea of when to place orders

Add "product-specific" cost indexes to the growing list of purchasing research tools.

Recent surveys suggest they're getting increasing attention from inflation-conscious buying executives these days—and with good reason. These tailor-made barometers (yardsticks which measure national cost trends of items purchased by the individual PM) can be used as:

- *Performance yardsticks:* By zeroing in on a buyer's own procurement mix these indexes enable a buyer to gauge how well he is doing relative to a national average.
- *Shopping guides:* A detailed look into the makeup of these indexes—by spotlighting high-cost areas (high relative to the national average)—can pinpoint individual product lines where shopping around for a better price may well be in order.
- *Inventory guides:* Projecting these cost indexes into the future (see example) can suggest (1) where some advance buying may be desirable, or (2) where a hand-to-mouth buying strategy for a specific material input may be more appropriate.
- *Escalation guides:* Translating these projected percentage increases into projected procurement outlays makes it possible to come up with dollars-and-cents input costs at some future date. This, in turn, can provide top management with an indication of how much contract escalation will be needed to cover cost advances during the predelivery production phase of a long-leadtime order.

In short, there are plenty of dividends for those willing to take the time and effort to develop this kind of approach. It's not surprising that big econometric forecasting outfits are offering packaged software that enables a PM to fully utilize the "product-specific" cost-index technique.

For instance, DRI—via its new "Projeval" program—not only helps a buyer set up an integrated approach, but also provides softwear applications that permit maximum flexibility in holding down costs.

For example, if you buy steel sheet—and forecasts suggest that this item will be rising 10% in a given quarter—the softwear program allows you to weigh the savings to be effected by advance buying of the steel sheet against the additional carrying charges that such an advance purchase implies.

Nor is the cost of the program astronomical. In the case of regular DRI Cost Forecasting Service clients, it amounts to little more than the additional computer time needed. And in some cases, DRI will agree to special contracts for nonclients.

Following through a simplified example involving the manufacture of printed circuit boards might best explain how the overall approach works.

- **Step 1: Calculate the "product specific" cost index.** This is accomplished by (1) assigning appropriate weights to appropriate government price indexes (called proxies) which can be used to approximate national cost averages for these inputs (see Table I). (DRI, incidentally, will provide weighting and proxy help to users when requested.)

Note from Table I, for example, that the circuit boards require the purchase of substrates. Since there is no government index with this name, the Producer Price Index (WPI 1134NS) which covers structural clay products—a category that uses the same or similar basic raw material inputs—is used as a substitute.

The weights are no problem—gen-

## I. Product-specific cost index inputs for printed circuit boards

| Material component | PPI proxy | Proxy definition | Component weight |
|---|---|---|---|
| Custom large-scale integrated circuits | WPI117841NS | Digital bipolar IC | 0.138 |
| | WPI117842NS | Digital MOS IC | 0.141 |
| | WPI117845NS | Linear IC | 0.137 |
| Capacitors | WPI117811NS | Capacitors | 0.146 |
| Relays | WPI117821NS | Relays | 0.124 |
| Double-sided PC boards | WPI1392NS | Insulation materials | 0.031 |
| | WPI10220106NS | Copper wirebar | 0.031 |
| Substrates | WPI134NS | Structural clay products | 0.100 |
| Discrete semiconductors: | | | |
| Transistors | WPI117835NS | Transistors | 0.046 |
| Diodes | WPI117831NS[1] | Diodes | |
| Subminiature transformers | WPI102601NS | Copper wire | 0.021 |
| | WPI101NS | Iron and steel | 0.021 |
| Miscellaneous hardware | WPI117827NS[2] | Electronic hardware | 0.035 |
| LSI semiconductors: | | | |
| Transistors | WPI117835NS | Transistors | 0.019 |
| Diodes | WPI117831NS[1] | Diodes | |
| Metal film resistors | WPI11781233NS[3] | Metal film resistors | 0.010 |
| Total | | | 1.000 |

Source: Data Resources, Inc.

← Circle 115 on card

erally comprising that portion of overall input costs traceable to the material input in question. In the case of substrates (or its proxy structural clay products), the weight is 0.10 or 10%.

Once the index is calculated, it is ready to use as a performance yardstick against your own recent purchasing experience and as a guide to where some shopping around may be in order.

But the index can be even more valuable as an inventory tool. This, however, requires projecting the index into the future. So . . .

■ **Step 2: Determine how far ahead to project the "product-specific" cost index.** This is generally a function of the problem to be solved. In this case in particular we will assume a contract signed in the second quarter 1981 calls for delivery of printed circuit boards 2½ years later (in the fourth quarter 1983). Therefore, we would need projected cost data going out 2½ years (see Table II below).

The "project composite" of 1.208 in the fourth quarter 1983, for example, suggests that weighted index of all inputs would rise 20.8% over the base period.

But more important than the "project composite" total cost increase are the individual input indexes from which it is calculated. Note, for example, that digital bipolar ICs (one of the inputs) actually declines in the first few quarters—something which might indicate some forward buying at that time to beat increases that are anticipated further on down the pike.

■ **Step 3: Calculate how much of a dollars-and-cents rise in input costs per circuit board we can expect**—assuming an equal volume of purchases for each of the 10 quarters.

This involves comparing bill of material costs before and after the specific percentage cost rises that are projected in Table II. Computer printouts depicting these estimated dollar costs are shown in Tables III and IV, respectively.

The comparison indicates that inflation would push the total material input cost per circuit board to $44.438 in the fourth quarter 1983 (see Table IV)—some $4.438 above the cost that would have pertained without any inflation. Put another way: If you accept (1) the input projections, (2) the assumptions of a 10-quarter leadtime and (3) equal purchases of each input during each quarter—then you can expect the input cost per circuit board to rise 11.1%

This example, of course, suggests that any finished-product pricing decision should include an 11% escalation factor.

But as pointed out earlier, this 11% factor can probably be reduced by opting for something other than equally spaced purchases of each input component over the 2½ year span. Indeed, it is here that the program comes to the fore—by permitting buyer simulation of purchasing combination and strategies—all aimed at minimizing procurement costs by taking advantage of changing cost patterns. ***PW***

## II. Product-specific cost index projections for printed circuit boards

(Second quarter 1980 = 1.000)

| | 1981 | | 1982 | | | | 1983 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th |
| **Project composite** | 1.021 | 1.037 | 1.053 | 1.076 | 1.099 | 1.119 | 1.142 | 1.167 | 1.188 | 1.208 |
| **Custom LSI's** | 0.929 | 0.936 | 0.946 | 0.960 | 0.979 | 0.996 | 1.013 | 1.032 | 1.047 | 1.062 |
| **Digital bipolar IC's** | 0.917 | 0.923 | 0.926 | 0.930 | 0.944 | 0.961 | 0.982 | 1.002 | 1.018 | 1.032 |
| **Digital MOS IC's** | 0.932 | 0.941 | 0.953 | 0.977 | 1.003 | 1.028 | 1.048 | 1.069 | 1.083 | 1.096 |
| **Linear IC's** | 0.936 | 0.945 | 0.957 | 0.973 | 0.991 | 0.998 | 1.009 | 1.024 | 1.040 | 1.055 |
| **Capacitors** | 1.092 | 1.117 | 1.128 | 1.170 | 1.200 | 1.224 | 1.255 | 1.299 | 1.337 | 1.375 |
| **Capacitors** | 1.092 | 1.117 | 1.128 | 1.170 | 1.200 | 1.224 | 1.255 | 1.299 | 1.337 | 1.375 |
| **Relays** | 1.139 | 1.150 | 1.162 | 1.182 | 1.204 | 1.222 | 1.235 | 1.247 | 1.262 | 1.277 |
| **Relays** | 1.139 | 1.150 | 1.162 | 1.182 | 1.204 | 1.222 | 1.235 | 1.247 | 1.262 | 1.277 |
| **Substrates** | 1.097 | 1.119 | 1.145 | 1.171 | 1.195 | 1.218 | 1.245 | 1.271 | 1.296 | 1.322 |
| **Structural clay products** | 1.097 | 1.119 | 1.145 | 1.171 | 1.195 | 1.218 | 1.245 | 1.271 | 1.296 | 1.322 |
| **Double sided printed circuit board** | 1.046 | 1.093 | 1.150 | 1.208 | 1.227 | 1.250 | 1.294 | 1.353 | 1.377 | 1.401 |
| **Insulation board** | 1.162 | 1.204 | 1.229 | 1.263 | 1.288 | 1.325 | 1.353 | 1.396 | 1.425 | 1.467 |
| **Copper wirebar** | 0.930 | 0.982 | 1.071 | 1.152 | 1.167 | 1.176 | 1.234 | 1.310 | 1.330 | 1.335 |
| **Discrete semiconductors** | 1.035 | 1.042 | 1.046 | 1.050 | 1.074 | 1.098 | 1.110 | 1.130 | 1.150 | 1.162 |
| **Transistors** | 1.035 | 1.042 | 1.046 | 1.050 | 1.074 | 1.098 | 1.110 | 1.130 | 1.150 | 1.162 |
| **Subminiature transformers** | 1.031 | 1.064 | 1.115 | 1.157 | 1.191 | 1.227 | 1.274 | 1.305 | 1.329 | 1.348 |
| **Copper wire** | 0.951 | 0.986 | 1.034 | 1.080 | 1.118 | 1.156 | 1.196 | 1.229 | 1.252 | 1.265 |
| **Iron and steel** | 1.111 | 1.142 | 1.197 | 1.233 | 1.264 | 1.298 | 1.351 | 1.382 | 1.406 | 1.430 |
| **Misc. hardware** | 1.077 | 1.099 | 1.114 | 1.129 | 1.149 | 1.169 | 1.188 | 1.209 | 1.231 | 1.254 |
| **Electronic components** | 1.077 | 1.099 | 1.114 | 1.129 | 1.149 | 1.169 | 1.188 | 1.209 | 1.231 | 1.254 |
| **LSI semiconductors** | 1.035 | 1.042 | 1.046 | 1.050 | 1.074 | 1.098 | 1.110 | 1.130 | 1.150 | 1.162 |
| **Transistors** | 1.035 | 1.042 | 1.046 | 1.050 | 1.074 | 1.098 | 1.110 | 1.130 | 1.150 | 1.162 |
| **Metal film resistors** | 1.071 | 1.093 | 1.101 | 1.124 | 1.152 | 1.166 | 1.179 | 1.194 | 1.208 | 1.222 |
| **Resistors** | 1.071 | 1.093 | 1.101 | 1.124 | 1.152 | 1.166 | 1.179 | 1.194 | 1.208 | 1.222 |

Source: Data Resources, Inc.

## III.

## Printed circuit board costs

(No inflation)

Cumulative dollar inputs for a single board

| | 1981 | | 1982 | | | | 1983 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th |
| Project composite | 4.000 | 8.000 | 12.000 | 16.000 | 20.000 | 24.000 | 28.000 | 32.000 | 36.000 | 40.000 |
| **Custom LSI's** | 1.664 | 3.328 | 4.992 | 6.656 | 8.320 | 9.984 | 11.648 | 13.312 | 14.976 | 16.640 |
| Digital bipolar IC's | 0.552 | 1.104 | 1.656 | 2.208 | 2.760 | 3.312 | 3.864 | 4.416 | 4.968 | 5.520 |
| Digital MOS IC's | 0.564 | 1.128 | 1.692 | 2.256 | 2.820 | 3.384 | 3.948 | 4.512 | 5.076 | 5.640 |
| Linear IC's | 0.548 | 1.096 | 1.644 | 2.192 | 2.740 | 3.288 | 3.836 | 4.384 | 4.932 | 5.480 |
| **Capacitors** | 0.584 | 1.168 | 1.752 | 2.336 | 2.920 | 3.504 | 4.088 | 4.672 | 5.256 | 5.840 |
| Capacitors | 0.584 | 1.168 | 1.752 | 2.336 | 2.920 | 3.504 | 4.088 | 4.672 | 5.256 | 5.840 |
| **Relays** | 0.496 | 0.992 | 1.488 | 1.984 | 2.480 | 2.976 | 3.472 | 3.968 | 4.464 | 4.960 |
| Relays | 0.496 | 0.992 | 1.488 | 1.984 | 2.480 | 2.976 | 3.472 | 3.968 | 4.464 | 4.960 |
| **Substrates** | 0.400 | 0.800 | 1.200 | 1.600 | 2.000 | 2.400 | 2.800 | 3.200 | 3.600 | 4.000 |
| Structural clay products | 0.400 | 0.800 | 1.200 | 1.600 | 2.000 | 2.400 | 2.800 | 3.200 | 3.600 | 4.000 |
| **Double sided printed circuit board** | 0.248 | 0.496 | 0.744 | 0.992 | 1.240 | 1.488 | 1.736 | 1.984 | 2.232 | 2.480 |
| Insulation board | 0.124 | 0.248 | 0.372 | 0.496 | 0.620 | 0.744 | 0.868 | 0.992 | 1.116 | 1.240 |
| Copper wirebar | 0.124 | 0.248 | 0.372 | 0.496 | 0.620 | 0.744 | 0.868 | 0.992 | 1.116 | 1.240 |
| **Discrete semiconductors** | 0.184 | 0.368 | 0.552 | 0.736 | 0.920 | 1.104 | 1.288 | 1.472 | 1.656 | 1.840 |
| Transistors | 0.184 | 0.368 | 0.552 | 0.736 | 0.920 | 1.104 | 1.288 | 1.472 | 1.656 | 1.840 |
| **Subminiature transformers** | 0.168 | 0.336 | 0.504 | 0.672 | 0.840 | 1.008 | 1.176 | 1.344 | 1.512 | 1.680 |
| Copper wire | 0.084 | 0.168 | 0.252 | 0.336 | 0.420 | 0.504 | 0.588 | 0.672 | 0.756 | 0.840 |
| Iron and steel | 0.084 | 0.168 | 0.252 | 0.336 | 0.420 | 0.504 | 0.588 | 0.672 | 0.756 | 0.840 |
| **Misc. hardware** | 0.140 | 0.280 | 0.420 | 0.560 | 0.700 | 0.840 | 0.980 | 1.120 | 1.260 | 1.400 |
| Electronic components | 0.140 | 0.280 | 0.420 | 0.560 | 0.700 | 0.840 | 0.980 | 1.120 | 1.260 | 1.400 |
| **LSI semiconductors** | 0.076 | 0.152 | 0.228 | 0.304 | 0.380 | 0.456 | 0.532 | 0.608 | 0.684 | 0.760 |
| Transistors | 0.076 | 0.152 | 0.228 | 0.304 | 0.380 | 0.456 | 0.532 | 0.608 | 0.684 | 0.760 |
| **Metal film resistors** | 0.040 | 0.080 | 0.120 | 0.160 | 0.200 | 0.240 | 0.280 | 0.320 | 0.360 | 0.400 |
| Resistors | 0.040 | 0.080 | 0.120 | 0.160 | 0.200 | 0.240 | 0.280 | 0.320 | 0.360 | 0.400 |

Source: Data Resources, Inc.

## IV.

## Printed circuit board costs

(With inflation)

Cumulative dollar inputs for a single board

| | 1981 | | 1982 | | | | 1983 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th |
| Project composite | 4.082 | 8.229 | 12.440 | 16.746 | 21.142 | 25.620 | 30.186 | 34.854 | 39.606 | 44.438 |
| **Custom LSI's** | 1.545 | 3.103 | 4.676 | 6.274 | 7.904 | 9.561 | 11.247 | 12.964 | 14.707 | 16.473 |
| Digital bipolar IC's | 0.506 | 1.016 | 1.527 | 2.040 | 2.561 | 3.091 | 3.633 | 4.186 | 4.748 | 5.318 |
| Digital MOS IC's | 0.526 | 1.056 | 1.594 | 2.145 | 2.711 | 3.290 | 3.882 | 4.485 | 5.095 | 5.714 |
| Linear IC's | 0.513 | 1.031 | 1.556 | 2.089 | 2.632 | 3.179 | 3.732 | 4.293 | 4.863 | 5.442 |
| **Capacitors** | 0.638 | 1.290 | 1.949 | 2.632 | 3.333 | 4.048 | 4.781 | 5.540 | 6.321 | 7.124 |
| Capacitors | 0.638 | 1.290 | 1.949 | 2.632 | 3.333 | 4.048 | 4.781 | 5.540 | 6.321 | 7.124 |
| **Relays** | 0.565 | 1.136 | 1.712 | 2.298 | 2.896 | 3.502 | 4.114 | 4.733 | 5.358 | 5.992 |
| Relays | 0.565 | 1.136 | 1.712 | 2.298 | 2.896 | 3.502 | 4.114 | 4.733 | 5.358 | 5.992 |
| **Substrates** | 0.439 | 0.886 | 1.344 | 1.813 | 2.291 | 2.778 | 3.276 | 3.784 | 4.303 | 4.831 |
| Structural clay products | 0.439 | 0.886 | 1.344 | 1.813 | 2.291 | 2.778 | 3.276 | 3.784 | 4.303 | 4.831 |
| **Double sided printed circuit board** | 0.259 | 0.531 | 0.816 | 1.115 | 1.420 | 1.730 | 2.051 | 2.386 | 2.728 | 3.075 |
| Insulation board | 0.144 | 0.293 | 0.446 | 0.602 | 0.762 | 0.926 | 1.094 | 1.267 | 1.444 | 1.626 |
| Copper wirebar | 0.115 | 0.237 | 0.370 | 0.513 | 0.658 | 0.803 | 0.956 | 1.119 | 1.284 | 1.449 |
| **Discrete semiconductors** | 0.190 | 0.382 | 0.575 | 0.768 | 0.965 | 1.167 | 1.372 | 1.580 | 1.791 | 2.005 |
| Transistors | 0.190 | 0.382 | 0.575 | 0.768 | 0.965 | 1.167 | 1.372 | 1.580 | 1.791 | 2.005 |
| **Subminiature transformers** | 0.173 | 0.352 | 0.539 | 0.734 | 0.934 | 1.140 | 1.354 | 1.573 | 1.796 | 2.023 |
| Copper wire | 0.080 | 0.163 | 0.250 | 0.340 | 0.434 | 0.531 | 0.632 | 0.735 | 0.840 | 0.946 |
| Iron and steel | 0.093 | 0.189 | 0.290 | 0.393 | 0.499 | 0.608 | 0.722 | 0.838 | 0.956 | 1.076 |
| **Misc. hardware** | 0.151 | 0.305 | 0.461 | 0.619 | 0.780 | 0.943 | 1.110 | 1.279 | 1.451 | 1.627 |
| Electronic components | 0.151 | 0.305 | 0.461 | 0.619 | 0.780 | 0.943 | 1.110 | 1.279 | 1.451 | 1.627 |
| **LSI semiconductors** | 0.079 | 0.158 | 0.237 | 0.317 | 0.399 | 0.482 | 0.567 | 0.652 | 0.740 | 0.828 |
| Transistors | 0.079 | 0.158 | 0.237 | 0.317 | 0.399 | 0.482 | 0.567 | 0.652 | 0.740 | 0.828 |
| **Metal film resistors** | 0.043 | 0.087 | 0.131 | 0.176 | 0.222 | 0.268 | 0.315 | 0.363 | 0.412 | 0.460 |
| Resistors | 0.043 | 0.087 | 0.131 | 0.176 | 0.222 | 0.268 | 0.315 | 0.363 | 0.412 | 0.460 |

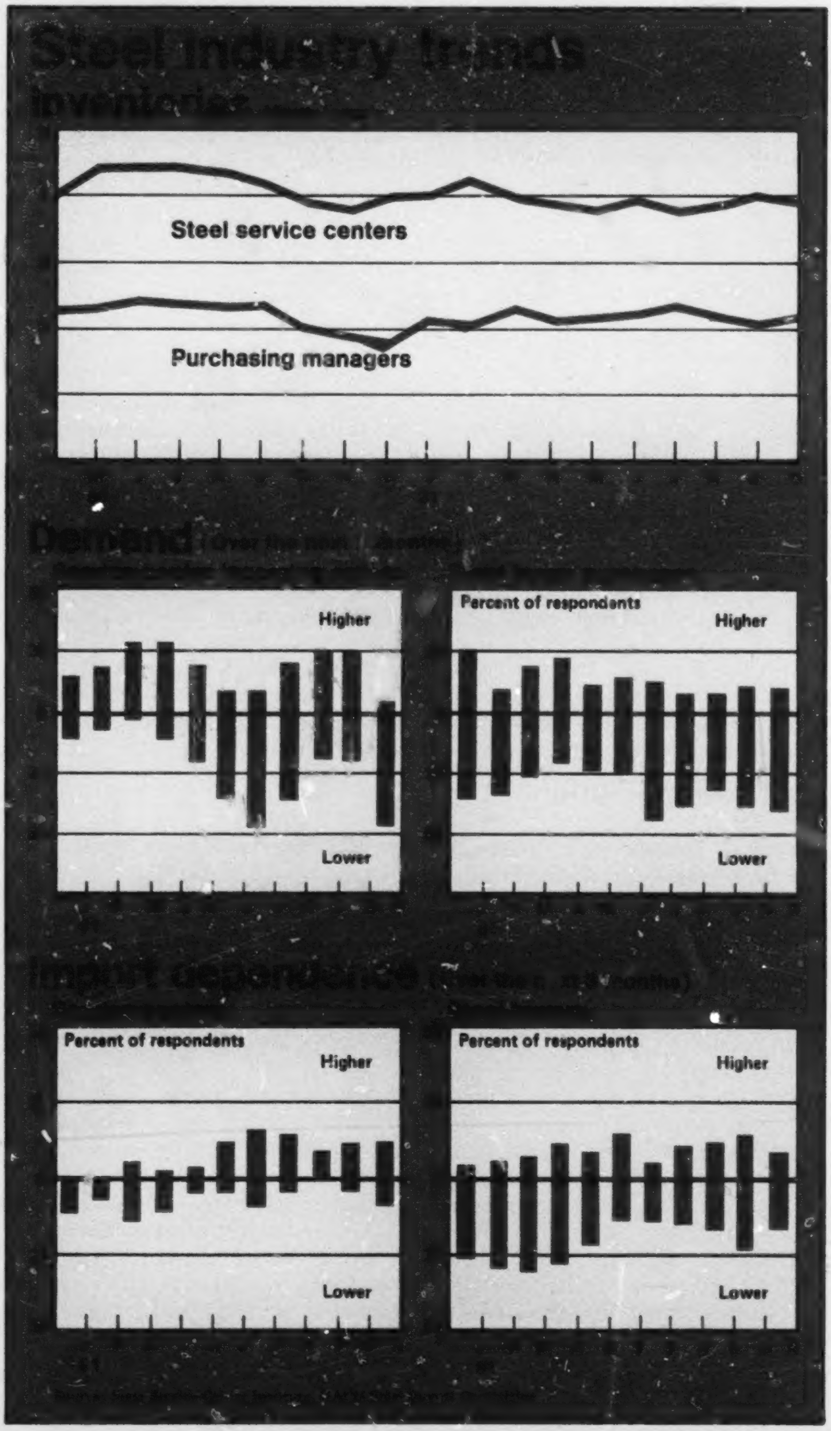
Source: Data Resources, Inc.

# Falling demand and imports hit steel

Steel surveys—on both the buyer and service center levels—suggest that the industry is being hit fairly hard by a combination of falling demand and rising import competition.

The NAPM Steel Survey report, for example, indicates that metal purchases over the next three months will be off significantly—with some 40% of the respondents expecting to cut back, nearly four times the number who still plan to up their steel receipts.

And the situation is even more bearish on the distributor level—as some 46% anticipate a downtrend in incoming orders over the next three months—far outweighing the minuscule 5% who are hoping for new gains.



The latest Steel Service Center Institute survey, however, notes some regional differences—with the various areas of the country shaping up something along these lines:

- **East:** There's been a surge in both plate and wide-flange imports. Heavy construction continues strong, as does much light manufacturing. But most major OEMs and computer firms remain soft. Defense subcontractors are holding firm.
- **Midwest:** Machine tools are holding their own, but farm and industrial equipment purchases are soft. Heavy appliances are down, too—though small appliances are relatively strong.
- **West Coast:** Everybody is waiting for defense spending to bring new life into electronics and aerospace. But overall markets could sink a bit lower as inventories continue to accumulate.
- **South:** Continued strength is reported in nonresidential construction and light consumer manufacturing. Office equipment is up, too. But textile equipment demand is down.
- **Southwest:** Energy-related markets continue to show strength—particularly in replacement and maintenance products. Major energy-related construction projects are also said to be ready for initiation.

The role of imports, meantime, is highlighted by the fact that both buyers and distributors note increased overseas bargains. Four out of every five buyers say foreign prices are under comparable domestic levels.

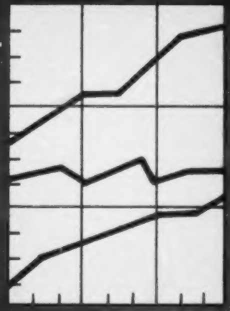
Inventories, meantime, remain relatively unchanged from levels prevailing over the past few months (top chart). Nevertheless, both buyers and service centers would still like to see them lower. Some 46% of the surveyed buyers plan reductions over the next six months—versus only 3% who contemplate increases.

And on the service center level, the comparable figures for the next three months are 33% aiming for reductions—twice as many as the 16% who plan on increasing their holdings.

One bright spot: Availability, as might be expected, presents few headaches. True, there are some spotty problems in bars and heat-treated products. But they are few and far between. ***PW***

Circle 160 on card →

## Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 88.00 | 98.00 | 104.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 88.00 | 90.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 74.00 | 82.00 | 81.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.68 | 0.70 | 0.90 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.61 | 0.72 | 0.76 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.65 | 0.66 | 0.86 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.395 | 0.400 | 0.420 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.29 | 0.31 | 0.39 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.320 | 0.345 | 0.415 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.155 | 0.150 | 0.130 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.22 | 0.25 | 0.30 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 20.00 | 20.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 10.00 | 10.00 | 13.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No.2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.13 | 0.13 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.25 | 0.25 | 0.38 |

# Plant maintenance costs soar

Inflation may be easing a bit. But you'd never know it by looking at plant maintenance and replacement costs—up 13% this year, with a 14% jump now seen for 1982.

A recent *Plant Engineering* magazine survey of well over 400 manufacturing locations tells the story. Findings suggest that rising costs are due to (1) general inflation, (2) the use of increasingly complex machinery which is trickier and more expensive to service, and (3) an aging plant and equipment base.

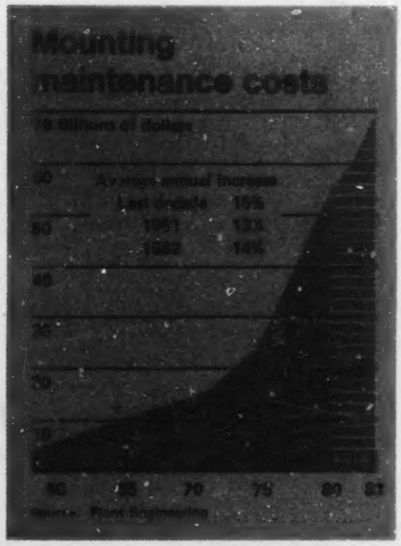
On the latter score, the study finds that the average age of a typical building is now 24.6 years—with 22% of factories built before World War II.

As for how this affects maintenance costs—the report finds that plants over 65 years old spend an average of $1,412,633 per year to keep things running—far above the $226,773 and $154,469 spent on plants in 30-39 year and less-than-30 year categories.

But whatever the age, the magnitude of expenditures is mind boggling. This year, an estimated $61.4 billion will be earmarked for this purpose—a near quadrupling since 1971 and the equivalent of 47.5% of a typical firm's annual capital expenditures.

Another interesting finding: Expenditures for outside contractor maintenance seem to be on the rise—now accounting for 24% of a typical firm's maintenance and replacement budget. And in the case of buildings (as contrasted to equipment) the percentage of the budget allocated to such services rises to 46%.

There is also increasing interest in computer scheduling of work-order controls. Some 18% of the respondents are already utilizing computers for this purpose—with another 28% seriously thinking of moving in this direction. **PW**



Mounting maintenance costs

Source: Plant Engineering

# Steady progress for insulation

Insulation material markets remain buoyant despite the current construction lull. And they're likely to continue outpacing the economy over the next few years—with demand advancing at an 8% annual rate over the 1981-85 period.

Prices, too, should continue to climb if a new Business Communications Co. (BCC) projection is anywhere near correct—with about a 12% average inflation factor anticipated over the same period.

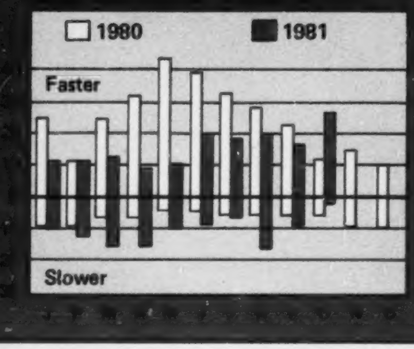
The Stamford, Conn., consulting firm sees fiberglass remaining the number one product. But substantial demand increases are seen for polyurethane and polystyrene foams—where real growth rates are put at 13% and 11%, respectively.

On the other hand, cellulose will never fully recover from the legislative and publicity onslaughts of 1977 and 1978.

But whatever the material, all of the demand gains are expected to come from the commercial and industrial sector of the market. All told, about a 15% annual gain is seen here over the next four years—in sharp contrast to the near-flat pattern anticipated for residential use. **PW**

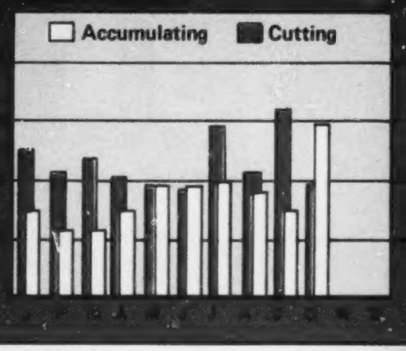
# PW monthly procurement status report

Delivery performance



Source: NAPM

Inventory strategy



# Delivery waits keep shrinking along with new orders

Chalk up another good month as far as availability and vendor delivery performances are concerned.

Both supply (operating rates are now averaging in the low, 78% range) and demand (both shipments and orders continue to edge lower) are behind this basically "no sweat" situation. And buyers, responding to ***Purchasing-World's*** latest procurement survey, indicate that they expect this trend to continue into early winter.

That's not to say, of course, that all problems have disappeared. A few items such as bearings, oil country tubular goods, and caustic soda are still somewhat short. And low producer stocks have made for some extensions in a few areas. But these are exceptions rather than the rule, and buyers for the most part say they're pretty much satisfied.

It's a conclusion that is borne out by ***PW's*** own exclusive leadtime index (chart, opposite page). This bellwether yardstick continues to run under the neutral 50 level—suggesting that delivery waits on average are still heading down.

The latest NAPM monthly Business Survey Committee report on faster and slower deliveries tells much the same story. Some 27% of the respondents note a speedup over the most recent 30-day period—up significantly from the 17% reading of the previous month. Equally noteworthy: Only a minuscule 2% have been hit with delays. ***PW***

## Leadtimes and availability

**Chicago:** Reduced leadtimes (in weeks) are noted for brass rods (2-3), copper rods (3-4), brass and copper sheet (5), softwood framing (2), capacitors 4-6), semiconductors (6-14), and PVC resins (1). Unchanged are shrink film (6), folding cartons (5-8), paints (1-2), wood pallets (2-3), and valves and fittings (½).

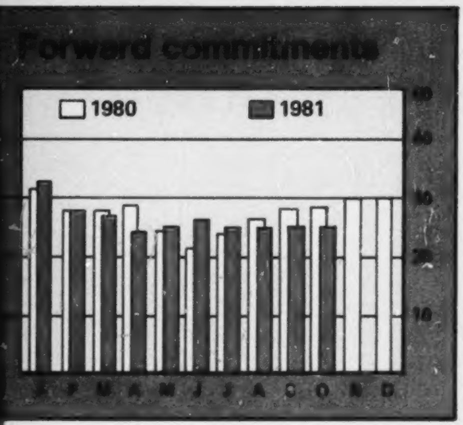
**Cleveland:** Expectations of declining steel leads have not materialized as mills cut output. Typical waits: 6 weeks for h-r and 8 weeks for c-r types. But leads on cold finished aluminum are down (to 10-12). Unchanged are PVC and polyethylene (3-4), maintenance paint (2), corrugated (3), steel canisters (6).

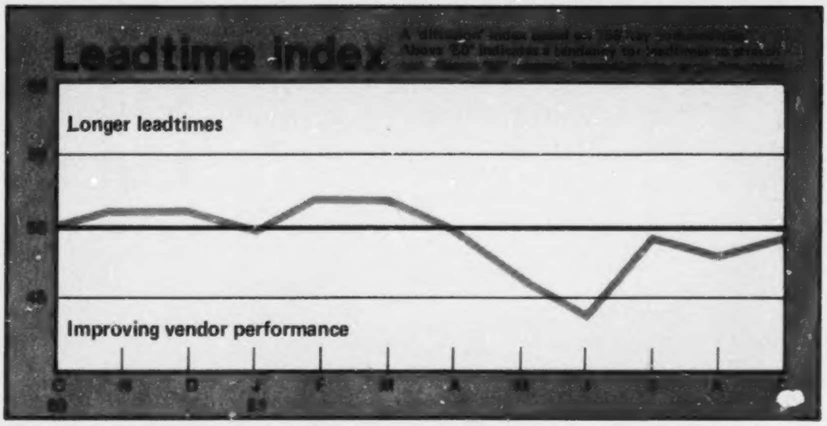
**Houston:** Mill steel availability remains unchanged at the recently lowered 6-12 week range. But there's some concern about price hikes in pipe alloys. Other typical waits (in weeks): forgings (6-8), steel castings (10-12), chemicals (2-4), MRO supplies (2-4), corrugated (2-6), tungsten carbide parts (14-18), and lubes (2-4).

**Los Angeles:** Reduced leads in weeks are noted for filler clay (3), galvanized steel (9-10), tempered glass (6-8), specialty wire (5-7), and pumps (7-9). Longer waits have hit adhesives (1½-3), copper tubing (9-10), copper fittings (7-8), castings (11-12), fasteners (5-7), and aluminum coil wire (12).

**Philadelphia:** Corrugated cartons have come in (to 2-3 weeks). Ditto, wood resins, which can now be had from distributors in 1 week. Lube oils have also dropped a bit (to 2 days). Steel is unchanged, with c-r bars available in 12 weeks and sheet and plate in 4-6 weeks. Stable waits for bearings (20-24) and standard fasteners (2-4).

**Pittsburgh:** No major shifts here—with these typical leads (in weeks): multiwall bags (10-12), corrugated boxes (3-4), standard steel drums (2-3), and natural kraft paper (4-6). Other typical waits are noted for lumber (2-4), steel strapping (2-3), maintenance paint (5), polyethylene and PVC resins (3), and copper products from the mill (6).


Forward commitments


Leadtime index

# Leadtimes (in weeks)

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 11 |
| Plate (Phil) | 5 | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2½ |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2½ |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 9½ | 11 | 13 |
| Galvanized (Chgo) | 4½ | 4½ | 10 |
| Structurals (Chgo) | 2 | 2 | 2½ |
| Structurals (Hous) | 17 | 17 | 30 |
| Tubing (Phil) | 10 | 10 | 10 |
| Greyiron Castings (LA) | 11½ | 4 | 6 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe Carbon (Hous) | 22 | 22 | 18 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chgo) | 10½ | 10½ | 10½ |
| Capacitors (Chgo) | 5 | 5 | 7 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electro mech. Devices (LA) | 9 | 9 | 10 |
| ICs (Linear) (Phil) | 12 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 6 | 6 | 6 |
| Relays (Chgo) | 12 | 12 | 12 |
| Resistors (Chgo) | 8 | 8 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2 | 2 | 2½ |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | ⅕ | ⅕ | ⅕ |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 7 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 7 | 7 | 3½ |
| Drums, Steel, std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 3½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | 1½ | 1½ | 1 |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3 | 3 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2 | 2½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 2½ | 2½ |
| Polyethylene Resin (Pgh) | 3 | 3 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 2 |
| PVC Resin (Pgh) | 3 | 3 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

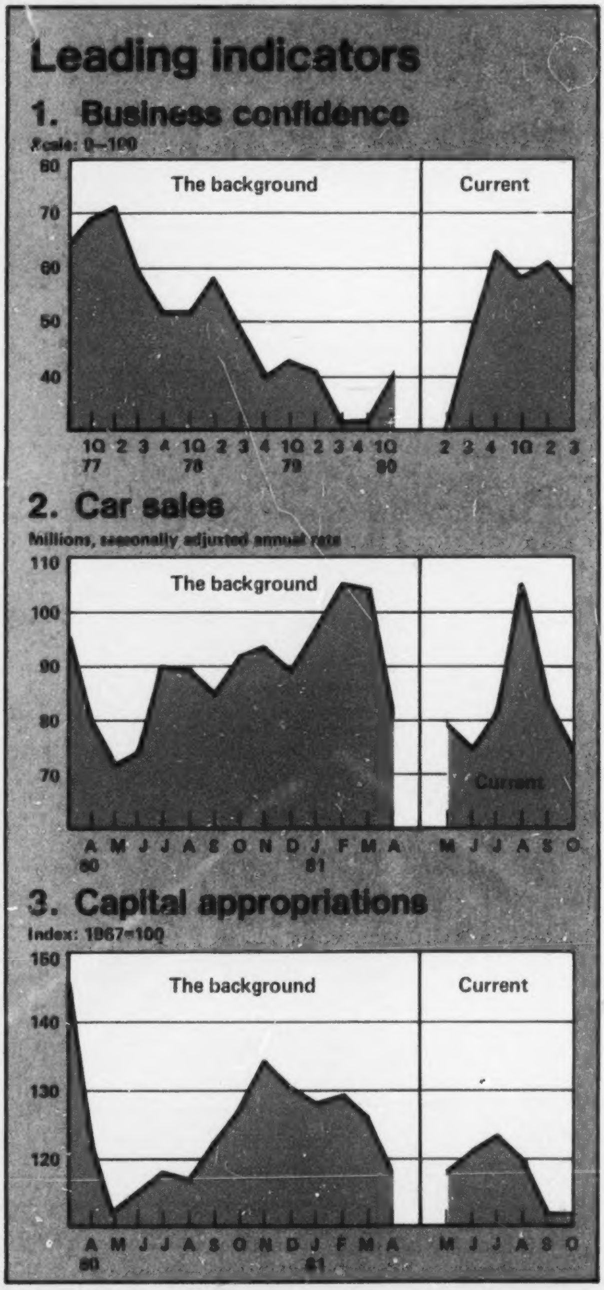
## Paper

| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 8 | 8 | 12 |
| Aluminum Plate (Chgo) | 8 | 8 | 8 |
| Aluminum Sheet (LA) | 11 | 11 | 14 |
| Aluminum Sheet (Chgo) | 8 | 8 | 11 |
| Brass Castings (LA) | 11½ | 7 | 10 |
| Brass Rods (Chgo) | 2½ | 10 | 10 |
| Brass Sheet (Chgo) | 5 | 9½ | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 7½ | 7 | 8 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 9½ | 7 | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 7 | 7 | 6 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 5½ | 4½ | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 41 | 41 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 7 | 7 | 7 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chgo) | ½ | ½ | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 11 | 11 | 13 |
| Rubber, Synthetic (LA) | 1½ | 1½ | 2 |
| Rubber Hose (LA) | 7 | 6½ | 8 |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |



**Business in brief:**

# Economy is down, but not yet out

The current slowdown isn't going to disappear overnight, but by the same token, there is little indication that we are heading for any big new recession.

Certainly, the NAPM Business Barometer (a lead indicator of activity some three months down the pike) doesn't seem to be pointing to any disastrous slide. To be sure, this yardstick is off considerably from recent levels, but it is still above the low points of the past two business pauses (see chart below).

Another factor which would seem to rule out any big dropoff at this time is the current relatively healthy state of inventories. The key purchased materials durable goods stock/sales ratio (a time-tested measure of days' supply on the PM level), for example, is now being logged in at around 0.69—still well under the 0.76 high of a year and a half ago.

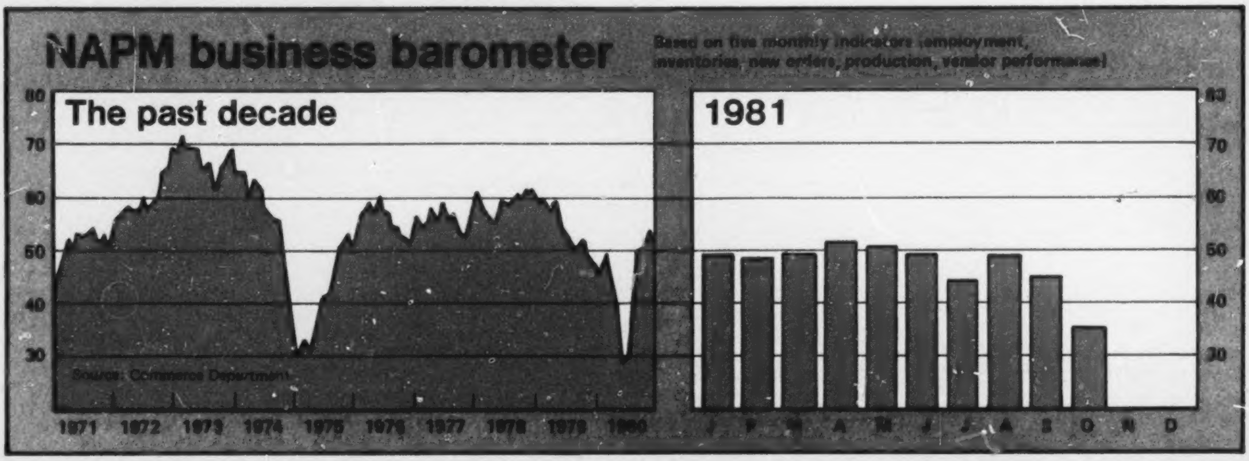
Finally, slowly falling interest rates have to be regarded as still another buttressing factor. The cost of money has already slipped several percentage points from the 20%-or-so level of a few months back—and could well edge lower by early next year.

On the other hand, it would be unrealistic to look for any significant improvement in the months immediately ahead. For one reason, business confidence can hardly be described as buoyant. On a scale of 1-100, the Conference Board puts corporate confidence at around the 57 mark (top chart)—hardly a harbinger of any economic pickup.

Auto sales also leave quite a lot to be desired. In recent weeks they have been averaging out at only a 7.5-million-unit annual rate—far under the 10-million-unit pace of this past spring (center chart).

Another indication of a sluggish economy: The decline in new job opportunities. As measured by the "help wanted" index, the dropoff here has been fairly substantial—about 8% over the past six months or so.

All in all, the current lull will probably hold the average 1981 GNP gain to under 2%. More significantly, the negative figures showing up for the current quarter are likely to continue into the January-March period. ***PW***



# Small rises reported

Chalk up another relatively encouraging month—with overall industrial tags rising only 0.5%, or just 6% at annual rate. And even this may be somewhat of an exaggeration since government figures are probably failing to pick up all the discounting that has been cropping up recently.

Again energy must take much of the credit for the price lull. Over the past 30 days, for example, price declines were reported in home heating oil, electric power, residual fuel, and liquefied petroleum gas.

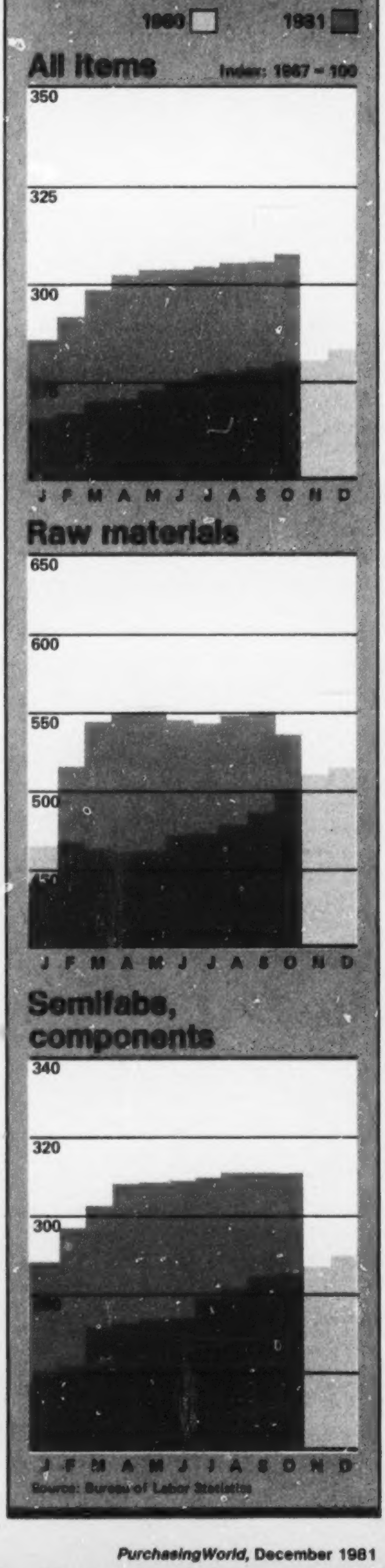
Other areas turning a bit softer included textile gray goods, organic chemicals, and even some industrial equipment. On the other hand, other types earmarked for the construction, chemical, printing, baking, oil, and mining industries—continued to move up the price ladder.

Auto and truck prices also rose significantly—reflecting the introduction of new 1982 models. In autos, the average increase came to a hefty $404 on the manufacturing level and an even larger $563 in terms of suggested retail price. But because more than one-fifth of this was due to quality (which is not considered part of the price rise by Uncle Sam's statisticians), the reported index went up by only 4.2%. ***PW***

## This month's breakdown

| | | Percent change from: | |
|---|---|---|---|
| | Latest level (June) | Month ago | Year ago |
| Bearings | 321.6 | 1.1 | 15.6 |
| Bolts, nuts, etc. | 268.1 | 0.3 | 8.5 |
| Chemicals, inorganic | 301.8 | 0.8 | 18.3 |
| Chemicals, organic | 403.0 | −1.3 | 9.5 |
| Concrete products | 293.3 | 0.1 | 5.7 |
| Cutting tools, small | 286.9 | 0.2 | 9.7 |
| Electrical instruments | 247.5 | 1.9 | 17.1 |
| Electric lamps (bulbs) | 279.8 | 1.0 | 6.6 |
| Fans and blowers | 328.8 | 0.1 | 3.8 |
| Fittings, industrial | 304.1 | −0.1 | 1.8 |
| Foundry and forge products | 336.2 | 0.6 | 6.1 |
| Fuel oil (residual) | 1174.3 | −1.1 | 24.4 |
| Furniture, commercial | 262.5 | 0.4 | 8.7 |
| Gasoline | 724.6 | −0.2 | 12.8 |
| Glass, flat | 218.5 | −0.1 | 8.9 |
| Glass containers | 334.8 | 0 | 9.3 |
| Gypsum products | 252.4 | −0.2 | 1.2 |
| Hand tools | 320.7 | 0.3 | 12.3 |
| Hand tools, power driven | 214.0 | 0.3 | 8.1 |
| Industrial furnaces | 333.0 | 0.1 | 9.1 |
| Integrating and measuring instruments | 205.1 | 1.0 | 8.9 |
| Internal combustion engines | 312.0 | 0 | 12.2 |
| Lubricating oil | 888.1 | 0 | 12.1 |
| Lumber millwork | 271.2 | 0 | 2.6 |
| Material handling equipment | 282.8 | 0.1 | 9.2 |
| Metal containers | 319.0 | −0.2 | 4.8 |
| Metal mill shapes | 308.9 | 0.6 | 4.6 |
| Metal tanks | 312.2 | 0.3 | 8.3 |
| Motors and generators | 307.8 | 0.2 | 11.8 |
| Motor trucks | 277.9 | 9.1 | 11.5 |
| Office and store equipment | 148.1 | −0.6 | 4.0 |
| Paperboard | 262.8 | 0 | 9.5 |
| Paper boxes and shipping containers | 248.6 | 0.1 | 10.2 |
| Paper office supplies | 222.4 | 1.6 | 10.0 |
| Paint | 251.0 | 0 | 4.9 |
| Plastic resins | 287.6 | −0.3 | 2.8 |
| Precision measuring tools | 226.2 | 0.5 | 8.7 |
| Pumps and compressors | 330.2 | 0 | 11.1 |
| Refractories | 308.8 | 0.3 | 13.0 |
| Rubber belts and belting | 307.0 | 3.1 | 15.0 |
| Scales and balances | 221.3 | 0 | −1.3 |
| Steel products | 347.3 | 1.0 | 13.4 |
| Switchgear | 248.9 | 0.2 | 5.1 |
| Textiles, synthetic fibers | 163.5 | 0.7 | 16.6 |
| Textiles, gray fabrics | 147.8 | −0.2 | 3.0 |
| Tires and tubes | 257.7 | 0.5 | 6.1 |
| Transformers and power regulators | 214.3 | 0 | 11.4 |
| Valves, industrial | 319.0 | −0.1 | 8.3 |
| Welding equipment | 266.7 | 0.4 | 7.7 |
| Wire and cable | 209.3 | 0.2 | −1.9 |

## Industrial prices at a glance



Source: Bureau of Labor Statistics

# Latest spot market prices

## Ferrous metals

| Ferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 21.65 | 19.90 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 21.65 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt. | 22.15 | 22.15 | 19.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 15.50 |
| Steel, bars, pitts, cwt. | 14.35 | 14.35 | 15.50 |
| Steel, bars, C.R., Pitts., cwt. | 29.20 | 29.20 | 30.60 |
| Steel, plates, Chi., cwt. | 23.25 | 23.25 | 21.50 |
| Steel, plates, Pitts., cwt. | 23.25 | 23.25 | 21.50 |
| Steel, sheets, H.R., Pitts., cwt. | 20.80 | 20.80 | 18.45 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 21.90 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 27.00 |
| Steel, basic wire, Pitts., cwt. | 25.95 | 25.95 | 21.20 |

## Nonferrous metals

| Nonferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.11 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.23 | 1.23 | 1.35 |
| Brass, yellow, [sheet], lb. | 1.17 | 1.17 | 1.29 |
| Cadmium, ton lots, lb. | 1.60 | 1.60 | 2.50 |
| Copper, eletrolytic, wire bars, refd., lb. | 0.81 | 0.82 | 0.98 |
| Copper sheet, over 24 in., lb. | 1.32 | 1.32 | 1.45 |
| Lead, common, N.Y., lb. | 0.36 | 0.38 | 0.45 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 424.00 | 424.00 | 410.00 |
| Molybdenum Climax Oxide/bags, lb | 8.50 | 8.50 | 7.70 |
| Nickel, electrolytic, producer, lb. | 3.50 | 3.50 | 3.50 |
| Platinum, producer, oz. | 475.00 | [illegible] | 475.00 |
| Silver, N.Y., oz. | 9.04 | 9.29 | 19.35 |
| Tin, Straits, N.Y., lb. | 7.90 | 7.82 | 8.20 |
| Zinc, Prime West, East St. Louis, lb. | 0.463 | 0.463 | 0.395 |
| Zinc, die casting alloy, No. 3, lb. | 0.528 | 0.528 | 0.425 |

## Chemicals

| Chemicals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.440 | 0.440 | 0.375 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.47 | 1.54 | 1.70 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 17.50 | 17.50 | 17.50 |
| Cresylic acide [over25%], tanks, lb. | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [2% to 5% meth.], tanks, lb | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.710 |
| Linseed Oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.345 | 0.345 | 0.325 |
| Methanol, syn., tanks, 4,000 gals., f.o.b Gulf Coast plants | 0.715 | 0.795 | 0.710 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.420 | 0.420 | 0.375 |
| Polyethylene resin, high-pressure molding, carlots, lb. | 0.45 | 0.45 | 0.41 |
| Polypropylene, G-P injection molding, lb., railcar shipment | 0.50 | 0.50 | 0.36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | 0.41 | 0.53 | 0.41 |
| Rosin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 46.50 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.375 | 0.375 | 0.340 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 127.50 |
| Sulphuric acid, 66°, commercial, tanks, ton | 93.69 | 93.69 | 77.25 |
| Titanium dioxide, anatase, reg., carlots, lb. | 0.69 | 0.69 | 0.57 |
| Xylene, tanks, gal. | 1.48 | 1.48 | 1.43 |

## Paper

| Paper | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 0 sulfate, water marked, 20-lb., 4 cartons, cwt | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. 0 Grade | 45.50 | 45.50 | 44.30 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt 50 lb., roll | 21.00 | 21.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 300.00 | 270.00 |

## Building materials

| Building materials | Latest price | Previous month | Year ago |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 308.11 | 325.61 | 332.75 |
| Lumber, 2x4, pine, mbf, cl | 295.93 | 296.23 | 298.50 |
| Plywood, plyform, 3/4", msf, cl | 594.10 | 590.80 | 568.53 |
| Plywood, 5/8", msf, cl | 347.94 | 349.64 | 366.90 |
| Cement, bulk, ton, tl | 61.23 | 61.19 | 59.01 |
| Sand, ton, cl | 6.02 | 6.08 | 6.83 |
| Ready-mix concrete, 3,000 psi/cu yd., 15 cu. yd. | 45.10 | 45.01 | 42.92 |
| Crushed stone, 1½", ton, cl | 7.61 | 7.50 | 7.05 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.69 | 0.68 | 0.67 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 146.17 | 147.04 | 135.79 |
| Brick, common, per thousand, tl | 164.30 | 163.76 | 153.81 |
| Asphalt Paving, AC-20 | 168.10 | 169.63 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.69 | 6.63 | 6.23 |

## Textiles

| Textiles | Latest price | Previous month | Year ago |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.244 | 0.254 | 0.294 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.01 | 1.01 | 1.00 |
| Cotton middling, 1", N.Y., lb. | 0.600 | 0.603 | 0.869 |
| Printcloth, 48", 80x80, N.Y., spot, yd | 0.780 | 0.840 | 0.680 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.61 |
| Blended printcloth, 64", 78x54, yd. | 0.76 | 0.77 | 0.72 |
| 20s Combed yarns | 1.85 | 1.85 | 1.82 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

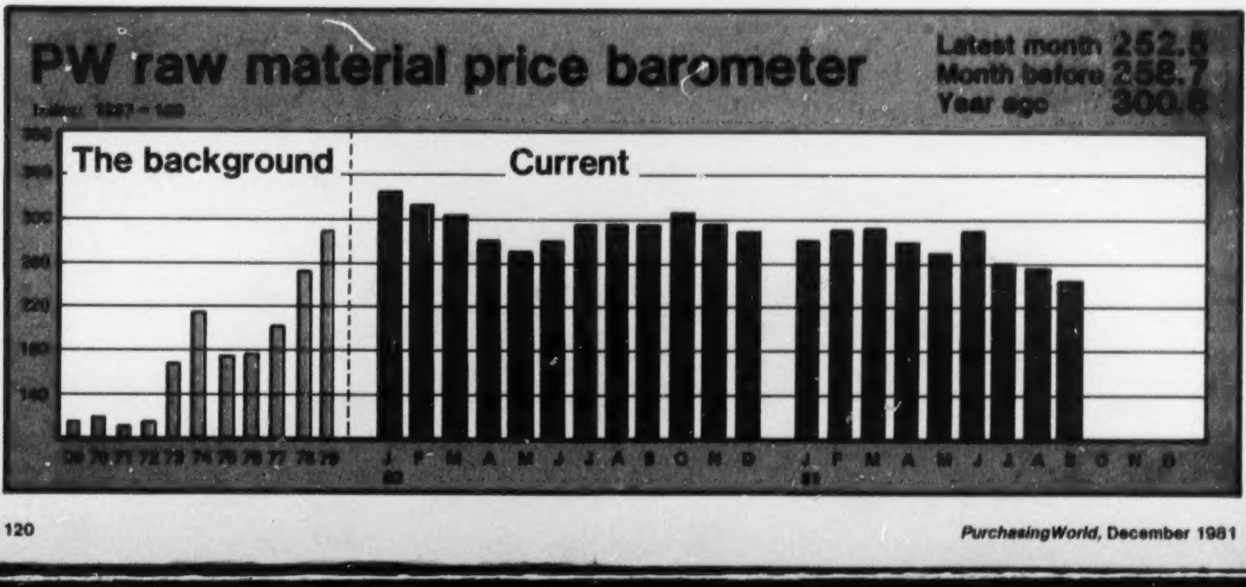
## Hides and rubber

| Hides and rubber | Latest price | Previous month | Year ago |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.56 | 0.48 | 0.58 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.458 | 0.465 | 0.800 |

## Fuels

| Fuels | Latest price | Previous month | Year ago |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | [illegible] | 23.25 | 27.00 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 32.77 | 32.77 | 33.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 1.025 | 1.045 | 0.890 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 1.008 | 1.003 | 0.905 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.968 | 0.960 | 0.812 |
| Heating oil, No. 2, N.Y., bulk, bbl. | 0.998 | 1.013 | N.A. |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 24.00 | 24.25 | 21.00 |
| 45 wt. diesel, Gulf, spot, gal. | 0.898 | 0.896 | 0.815 |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.440 | 0.440 | 0.417 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]



## PW raw material price barometer

Latest month 252.5
Month before 258.7
Year ago 300.6

1 C8650-2

January 1982

# PurchasingWorld®

1901 25 2936748 1 W JPK*
JOSEPH MCNALLY
CONGRESSIONAL INFORMATION
SERVICE INC
4520 EAST-WEST HWY-STE 800
WASHINGTON DC 20014

## What's Ahead

**Inflationary pressures** will continue to ease a bit in the opinion of purchasing executives we surveyed (p. 8).

**General business** for 1982 will top 1981 with the turnaround starting in midyear or earlier, NAPM members forecast (p. 43).

**Capital spending** will be flat in 1982 after allowing for price increases (p. 52).

**Labor negotiations** will emphasize job security over other factors in major contracts (p. 56).

## Sommers analyzes supply-side economics

**—page 32**

In an exclusive interview, Albert T. Sommers, chief economist and senior vice president of The Conference Board, takes a hard look at the Administration's economic program and how it will affect business this year. His conclusion: It could be setting the stage for longterm improvement, but nearterm gains will be slight.

**Plus: Dr. Louis J. Paradiso tells how the year shapes up —page 44**

**PurchasingWorld**® Vol. 26, No. 1 - January 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
Richard L. Dunn

Executive Editor
Robert S. Reichard[†]

Managing Editor
Paul V. Farrell[†]

Technical Editor
John Fitts

Management Editor
Lea Tonkin

Production Editor
Teri Preston

Art Director
Richard Trefilek

Assistant Art Director
Robert Fry

**Consulting Editors**

Economics and Government
Dr. Louis J. Paradiso

Purchasing and the Law
Dr. John E. Murray, Jr.

Value Analysis
Lawrence D. Miles

Materials Management
Ernest C. Huge

Negotiating
Louis DeRose

Transportation
Dr. Leon Wm. Morse

[†] 620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **Purchasing execs have mixed emotions in 1982.** Here's how respondents to a recent ***PurchasingWorld*** survey view 1982 economic conditions.

32 **Supply-side economics: its strengths and weaknesses.** Veteran economist Albert T. Sommers voices some reservations about the "Reaganomics" program.

34 **Expect slow moderation in inflation.** Buyers can look forward to somewhat smaller price increases in the years immediately ahead, as inflationary pressures slowly continue to moderate.

43 **NAPM members forecast slight progress.** Business Survey Committee members expect economic climate over the next 12 months to eventually take a turn for the better.

44 **Another tough year ahead.** Here's how consulting editor Dr. Louis J. Paradiso sees the 1982 economy shaping up.

52 **Executives expect easing of inflation rates.** According to a recent survey, the nation's top businessmen are now betting on some fair-sized price deceleration during 1982.

56 **Labor leaders take a new tack: job security to be major bargaining point.** Forced to choose between fat contracts and keeping jobs, union leaders say they will opt for job security.

67 **Types of roller element bearings.** Here's a guide to the types of roller-element bearings.

74 **Executive opinion: Your basic function is managing money.** A CEO talks about the major concerns of purchasing.

## Around the purchasing world

12 **PW Predicts**
19 ***PurchasingWorld* Perspective**
22 **Washington Perspective**
25 **Purchasing and the Law**
26 **Effective Negotiating**
28 **Principles of Value Analysis**
80 **Materials Management Close-up**
83 **International Perspective***
90 **SSCI Survey of Business Conditions***
97 **Pro-D/Management Briefs***
102 **Labor Perspective**
105 **Transportation Briefing**
106 **NAPM Perspective**
108 **Freight Newsbriefs**
115 **Product Briefs**
128 **Product Information**
134 **Price Perspective**
136 **Latest Scrap Quotations**
138 **Procurement Status Report**
140 **Business in Brief**
142 **Industrial Prices at a Glance**
144 **Raw Materials Price Barometer**

* Metalworking edition

ABP

BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010.
©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, A Company of The Dun & Bradstreet Corporation—All Rights Reserved.
ISSN 0093-1659

# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Imports offer variety of opportunities

A closer look at import markets may well be in order.

Reason: A combination of slack overseas domestic demands and a continuing strong U.S. dollar is making for a growing number of bargains. On the latter score, the trade-weighted value of the dollar relative to other currencies has jumped close to 10% over the past six months. Other things being equal, this could translate into an import price decline of the same magnitude.

To be sure, actual prices haven't fallen anywhere near that rate—primarily because of domestic inflation in overseas countries. But the fact remains they have been edging lower.

A new Bureau of Labor Statistics tabulation, for example, suggests these declines over the last-reported 3-month period: lumber (−3.7%), office machines (−3.1%), metalworking machinery (−3.0%), textile machinery (−2.0%), household electrical equipment (−1.6%), auto electrical equipment (−5.0%), electrical measuring instruments (−3.5%), fasteners (−1.4%), furniture (−2.8%), scientific instruments (−2.3%), optical instruments (−1.6%), medical instruments (−2.6%), and auto parts (−0.9%).

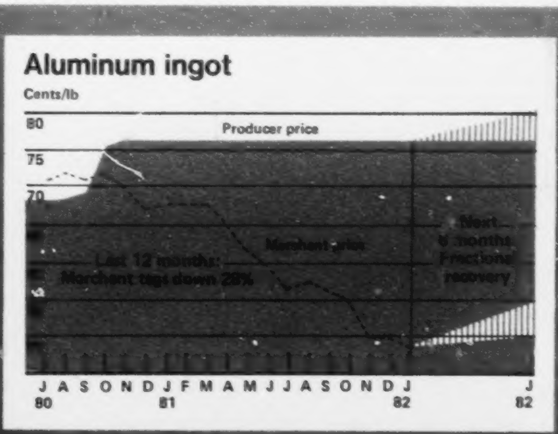
But perhaps the proof of the pud-

### Aluminum price scene

**CURRENT SITUATION: The light metal is taking its lumps these days as demand continues to sag.** To be sure, domestic shipments for 1981 as a whole were up fractionally. But that's only because of early-in-the-year gains. And certainly current hand-to-mouth ordering isn't helping matters. More important, export markets have collapsed over the past 12 months—dropping over 40%. Prices, too, have gone through the floor—with merchant ingot down in the 50¢/lb range and substantial discounts available in virtually all fabricated areas.

**DEMAND: The new year doesn't look all that bullish either.** That's not to say that domestic shipments won't again be up a few percentage points. But much of the gain will be offset by a further decline in exports. All told, this suggests that industry will ship only about 14 billion lb—still well under the 14.9-billion-lb peak hit back in 1979. Demand in the packaging industry, however, should be up smartly. And the auto take, while currently quite low, should pick up in the second half—aided by another increase in per-car use.

**SUPPLY: It looks like clear sailing for buyers.** U.S. and Free World producer inventories (both about 60% above a year ago) are way too high. And while production is being cut back, it will take time, lots of time, to redress the balance. Capacity presents no problems either. U.S. producers are currently operating at around 75% of their potential—and will be lucky to bring


Aluminum ingot

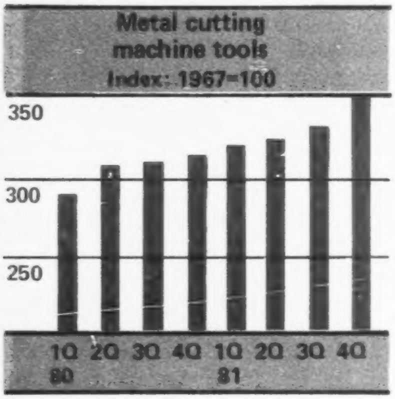
that figure up to 80% in 1982. Also worth noting: Free World capacity is slated for a rather large boost over the new year—with total potential moving up near 7% (to about 10.9 million tons).

**PRICE OUTLOOK: Current weakness is likely to persist for a while**—though discounts should begin to narrow a bit by sometime this spring. Also—with energy and other costs continuing to mount, producers may well decide to post small list hikes by summer or fall—with ingot moving up to around the 80¢/lb range. But it won't be because they expect all the boosts to hold. Rather it will be to set the scene for what they now expect will be a rather robust 1983.

ding is in actual import figures. Led by bargains in metals and machinery, total U.S. imports in the year just ended ran well ahead of year-earlier levels—even after deflating the figures for higher prices.

### Machine tools

Press for concessions as orders continue to sag (1982 totals for metalcutting types ran a hefty 40% or so under the previous year). The popular types of unofficial cuts: (1) an extra 30-days to pay and (2) below-market rates on installment financing. Worth noting, too: Deceleration is already apparent in official government price indexes. As of now, for example, quotas are averaging only 7½% above year ago levels—well under the 11½% advance posted over the previous 12-months.



### Copper

The red metal is probably as low as its going to go, but any sustained rally will have to wait until copper's two major markets—autos and housing—begin to pick up. When they do, prices could well stage a sharp recovery; copper fundamentals are not all that bearish. For example, Free World stocks, at only 18% of overall consumption, are pretty much in balance. One thing for sure, price increases will eventually be needed—since current market quotes are in many cases under actual production costs. Upshot: Prices could well begin to approach the $1/lb level by late in the year or early 1983.

### Steel

Imports remain a king-sized headache—with lower-priced foreign material taking upwards of 20% of the U.S. market in recent months. Modest declines in overall consumption aren't helping matters. Neither are continuing user inventory drawdowns. As for average price trends, look for competitive conditions to continue through the first quarter as overall consumption hovers around the low 100-million-ton annual rate. On the other hand, that doesn't rule out the possibility of new price-boosting attempts—as producers move to get their house in order for the pickup anticipated later on in the year.

### Lead

The heavy metal continues to sag—with well over 30% knocked off the going price since last summer. And indications are another cent or two could be lopped off quotes in the weeks immediately ahead. It's hard to remain bullish these days in view of (1) sagging LME prices, (2) the threat of imports, and (3) rising inventories. On the latter score, U.S. primary stocks are now running close to 70% above a year ago. The extended outlook isn't all that bullish either—as (1) demand for lead in gasoline continues to drop, (2) the lead content of batteries drops 3 lbs in 1982, and (3) overcapacity remains a big problem in the secondary lead sector.

### Zinc

Recent declines were not all that unexpected. They reflect lack of demand from both the housing and auto markets. Add recent producer inventory increases and slack overseas ordering, and prices could well fall another 1-2¢/lb before bottoming out sometime in early spring. The longterm prognosis isn't all that rosy either—particularly in the big auto market. A recent GM study, for example, suggests that the average car will be using only 10 lb of the metal in 1985—down some 9 lb from recent 1980 levels.

### Acetone

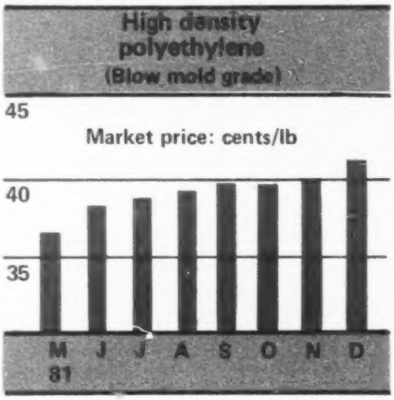
Prices are bucking the overall weakness noted in most other chemical areas—primarily because of reduced availability forced by production cutbacks in coproduct phenol. Producers are apparently unwilling to run phenol plants to make acetone. Result: Prices are actually firming—with first quarter 1982 levels expected to average in the 30¢/lb-plus range—some 1-2¢/lb above late 1981 levels.

### Titanium

Japanese sponge prices could drop as low as $8/lb—well under the $8.82-10.30/lb 1980 contract levels. Credit the easiness to rising consumer inventories. Equally important—supplies also look to remain in surplus—with the producer expecting a 6-year sponge glut. Specifically, a U.S. 10.2-million-lb excess in 1981 could double to over 21 million lb by 1986. The producer hope: Increased use in the B-1 bomber by 1984 and 1985.

### High-density polyethylene

Market prices are extremely weak—with quotes for the bellwether blowmolding grade dropping another 1¢/lb in recent weeks. Reports, for example, suggest that volume purchases can now be made in the low 37-39¢/lb range—far under the 45-48¢/lb list level. Behind the easiness: Low ethylene prices and sagging demand. But buying should pick up over the new year—with about a 6% shipment gain bringing the 1982 total to near 4.9 billion lb. But no availability sweat—as operating rates remain in the low 77-78% range.



### Polyvinyl chloride

Weakness here, too, as the workhorse plastic's key housing market continues to drag. And again, as in the case of HDPE, feedstock costs are a contributing factor—with VCM quoted at only 17¢/lb, some 3¢/lb under previously listed levels. Upshot: Shop around, and you can probably buy PVC (home-polymer grade) in volume quantities for as low as 25-27¢/lb—in sharp contrast to the 34¢/lb list still quoted by most producers.

### Turpentine

Discounts for crude sulfate material now range as high as 30% off the prevailing $1.35-1.45/gal list. Much of the competitive infighting stems from the seasonal slowdown in demand from paint makers. But don't expect lists to drop, as producers look forward to a business pickup by spring—one that they say should bring market quotes back up to profitable levels.

### Antimony

The oxide has turned increasingly competitive now that Asarco has dropped truckload prices down into the $1.40-1.50/lb range. The point to keep in mind: This is well under the $1.80/lb quoted by most other producers. Lower prices reflect both the recession-impacted chemical market and recently lowered byproduct lead prices. Other factors: the high producer cost of carrying inventories and pollution dangers involved in storing this key fire retardant.

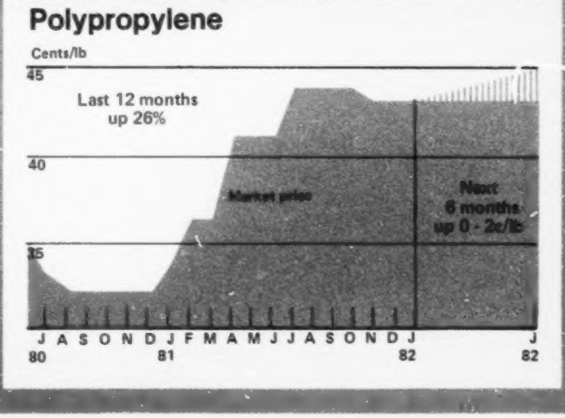
### Forgings

Import competition is becoming an increasingly important factor. Reports indicate that overseas firms are undercutting domestic quotes by 20% or more in some cases. Indeed, at a recent meeting of the Forging Industry Association, members said that some items were being sold at prices below the cost of new steel. Primary sources of the cheap imports include Italy, Japan, West Germany, and Brazil—with the booming energy-oriented markets of the Southwest said to be most affected. ***PW***

## Polypropylene price scene

**CURRENT SITUATION:** The versatile plastic managed to buck much of the price weakness in other resins up until a few months ago. But a recent 2-4¢/lb increase has failed to hold. Even so, the current market level (42-45¢/lb for the homopolymer grade) isn't all that much under the official 50-51¢/lb list level. In any case, it's well above the 33-34¢/lb that producers averaged in 1980. **Demand, too, hasn't been all that bad—**with shipments in the year just ended estimated to be 6-7% above 1980 levels.

**DEMAND: The volume thermoplastic should again outperform the economy and most other plastics**—with about a 4-6% increase currently anticipated for 1982. That should be enough to push industry shipments above the 4-billion-lb mark. Increased usage in new model cars will help. So will the trend toward PP bottles and food pouches. And the plastic still holds the price edge over other synthetics in the fiber market. The longterm prognosis also remains rosy. Indeed, some observers now predict close-to-10% annual advances over the next few years. Though somewhat under the pre-1980 13% average, it suggests that sales by 1986 should be up in the 6 billion lb/yr range.



**SUPPLY: No problem with availability over the next year or two.** Right now, the industry is operating at about 75% of its potential. And even with next year's demand gains, the figure should still fall short of 80%. **But there could be some problems over the really long run—say, 1984.** Reason: Unlike other plastics, PP is not slated for any capacity additions. From now through 1984, for example, industry potential should remain around the 5-billion-lb mark—a figure which suggests operating rates may be approaching the 90% level by the latter year.

**PRICE OUTLOOK: Another nearterm attempt to boost lists seems all but inevitable—especially if feedstock (propylene) moves up as expected.** But continuing discounts should help modify the overall impact. **Still more boosts are likely after midyear,** and for the year as a whole, count on paying about 45-47¢/lb.

# Expect slow moderation in inflation

Econometric models are telling basically the same price story as business analysts, corporate bigwigs, and purchasing executives—namely that inflationary pressures will slowly continue to moderate.

Nor is the deceleration based on the assumption that demand will be falling out of bed. The Data Resources Incorporated (DRI) Cost Forecasting Service, for example, assumes the economy will still be able to eke out a small 9.4% real gain this year and a respectable 4.2% advance in 1983. Yet even with these increases, DRI puts the overall GNP price rises in the neighborhood of 8% over this 2-year period—modestly under the 9% boosts of the past two years.

Zero in on industrial commodity quotes and the 16.2% and 10.7% increases of 1980 and 1981 dwindle to only 7.5% over the new year—though some acceleration is seen here over the following year. A product-by-product rundown in the industrial sphere—culled from DRI's latest computer printout—is shown in the table.

■ **Steel mill products:** Increases over the next few years will fall in the 10% range. But compound annual rates (CARs) over the 14 quarters ending in late 1984 will vary item by item. Thus, the rebar CAR is expected to be 10.9%, while steel strip hikes will average in the somewhat lower 8.7% range.

■ **Aluminum:** A fairly strong rebound is anticipated based on increasing auto and housing activity. Note from the chart, for example, that aluminum shapes, which are now running only 7.2% above a year ago, are expected to jump 13.2% over the next 12 months.

■ **Copper:** The price outlook here is similar to aluminum—and for the same reasons. Thus cathode tags could be up about 19.5% over the next 12 months—bringing them into the $1/lb range.

■ **Industrial chemicals:** Some modest gains after the near-level performance of the past few months are anticipated. Gains over the next 12 months will average out at 8.8%. But some acceleration into the 13.7% range is seen over the following year (1983) as market conditions come back into balance.

■ **Machinery:** A mixed bag here. Oil field equipment increases will be a lot smaller than last year—but still in the double-digit range. Metalworking machinery will accelerate a bit as demand gradually improves. But electrical equipment increases will remain in the relatively low 7½% range.

■ **Electronic components:** Technological innovations will limit price increases—with advances over the next two years estimated at only about 5-6% a year. Japanese competition will limit advances in digital bipolar IC's to an even lower 4% rate over the next 12 months.

■ **Metal components:** Some representative CARs over the forecast period: (1) fasteners (8.6%) as competition from imports and adhesives holds down increases; (2) valves and fittings (11.5%) as demand from the oil industry remains strong; and (3) abrasive products (7.6%), with demand support coming from a metal fabricating industry that will start to recover this spring. ***PW***

## The price outlook into 1984

### (Comparison of first quarter pricing)

| | Price Increase (Percent) | | | |
|---|---|---|---|---|
| **Raw materials, energy** | 81/80 | 82/81 | 83/82 | 84/83 |
| Materials for durable manufacturing | 0.4 | 6.4 | 12.8 | 12.6 |
| Construction materials | 7.1 | 5.4 | 10.5 | 11.5 |
| Industrial chemicals | 13.7 | 8.0 | 8.8 | 11.7 |
| Refined petroleum products | 25.2 | 2.8 | 6.0 | 9.6 |
| **Metals** | | | | |
| Domestic copper (cathode) | −20.9 | 10.6 | 19.5 | 14.0 |
| Foreign copper (cathode) | −29.8 | 4.6 | 19.2 | 14.4 |
| Aluminum shapes | 10.8 | 7.2 | 13.2 | 11.6 |
| Lead (pig, common) | −33.8 | 28.5 | 14.1 | 14.0 |
| Sheet metal products | 8.1 | 6.1 | 7.4 | 9.1 |
| Iron and steel | 8.3 | 10.0 | 12.3 | 11.2 |
| Steel mill products | 10.3 | 9.7 | 9.8 | 10.2 |
| Foundry and forge shop products | 7.0 | 8.7 | 11.8 | 10.3 |
| Steel reinforcing bars | 0.0 | 2.6 | 13.2 | 14.2 |
| **Components** | | | | |
| Graphite electrodes | 18.0 | 9.9 | 7.4 | 9.0 |
| Ball and roller bearings | 18.5 | 12.4 | 8.8 | 10.2 |
| Corrugated containers | 4.8 | 6.1 | 10.3 | 7.0 |
| Capacitors | 15.3 | −0.5 | 11.0 | 12.4 |
| Integrated circuits (digital, bi-polar) | −2.2 | −5.9 | 4.0 | 7.8 |
| Fasteners | 5.1 | 7.7 | 6.7 | 11.9 |
| Electronic components | 10.5 | 4.8 | 5.5 | 5.9 |
| Electric motors | 9.1 | 7.2 | 8.8 | 9.3 |
| **Construction materials** | | | | |
| Plastic construction products | 2.0 | 4.6 | 10.2 | 11.1 |
| Bituminous paving materials | 15.9 | 14.5 | 10.5 | 13.4 |
| Portland cement | 6.0 | 6.2 | 12.0 | 13.4 |
| Asphalt roofing | 5.1 | 3.6 | 4.2 | 6.0 |
| Paint materials | 8.9 | 9.3 | 11.5 | 10.0 |
| **Equipment** | | | | |
| Electrical machinery | 10.4 | 7.0 | 7.4 | 7.6 |
| Metalworking machinery | 11.6 | 7.6 | 9.9 | 10.7 |
| Oilfield equipment | 25.6 | 13.0 | 13.4 | 12.2 |
| Construction equipment | 11.4 | 9.6 | 9.0 | 9.8 |
| Pumps and compressors | 13.9 | 8.7 | 9.8 | 10.8 |
| Fans and blowers | 9.5 | 8.5 | 8.8 | 10.2 |

Note: Selected from more than 200 wage and price forecasts, which are available at a quarterly frequency and are updated quarterly.

Source: Data Resources, Inc., Cost Forecasting Service.

## Business Committee Survey:

# NAPM members forecast slight progress

The close-to-250 members who make up NAPM's prestigious Business Survey Committee aren't at all that bearish about the upcoming year.

To be sure, they still expect inflation to be a major problem—and few see any big business spurt ahead. Yet there are indications that things will eventually take a turn for the better—with the economic climate over the next 12 months expected to shape up along these lines:

■ **General business:** Some 46% of responding members now expect 1982 to top 1981—nearly three times as many as the 16% who see things getting worse. Indeed, many feel that the turnaround could come as early as the second quarter—and that it will probably prove strong enough to make the first half of 1982 a bit better than the dismal last six months of 1981.

■ **Inflation:** While few are satisfied or complacent, a comparison with a year ago when a similar survey was taken suggests some cautious optimism this time around. For example, the 57% who see industrial prices rising over the first six months of the year is significantly less than the 84% reading of a year earlier. And the 2% who rate upcoming increases as "severe" are substantially under the 8% of a year ago.

Latest actual NAPM figures show new orders declining for six months running—with inventories following a similar pattern. And the NAPM Business Barometer—a lead indicator of activity a few months down the pike—has also slipped sharply in recent months.

In any event, the recession is not expected to last all that much longer, if respondents' appraisals are anywhere near correct. Specifically, some 63% see the second half of 1982 as being better than the first half—a figure that drowns out the few (9%) who are betting on continued deterioration at that time.

But if responding PMs are cautiously optimistic about the general business trend, they do have reservations about any big increase in capital spending. The pertinent 1982 findings here: Only 33% see increases in plant and equipment outlays over the year—actually fewer than the 36% who anticipate declines. This contrasts with last year when capital spending optimists outnumbered pessimists by about a 4-to-3 margin.

One reason for the expected slowdown here may be today's relatively low factory utilization rates. Almost three out of every four responding companies now say they are operating in the 90% or under range, and nearly one out of three are down in the 75% and under category. That's hardly the climate for initiating any big, new, plant and equipment expansion programs.

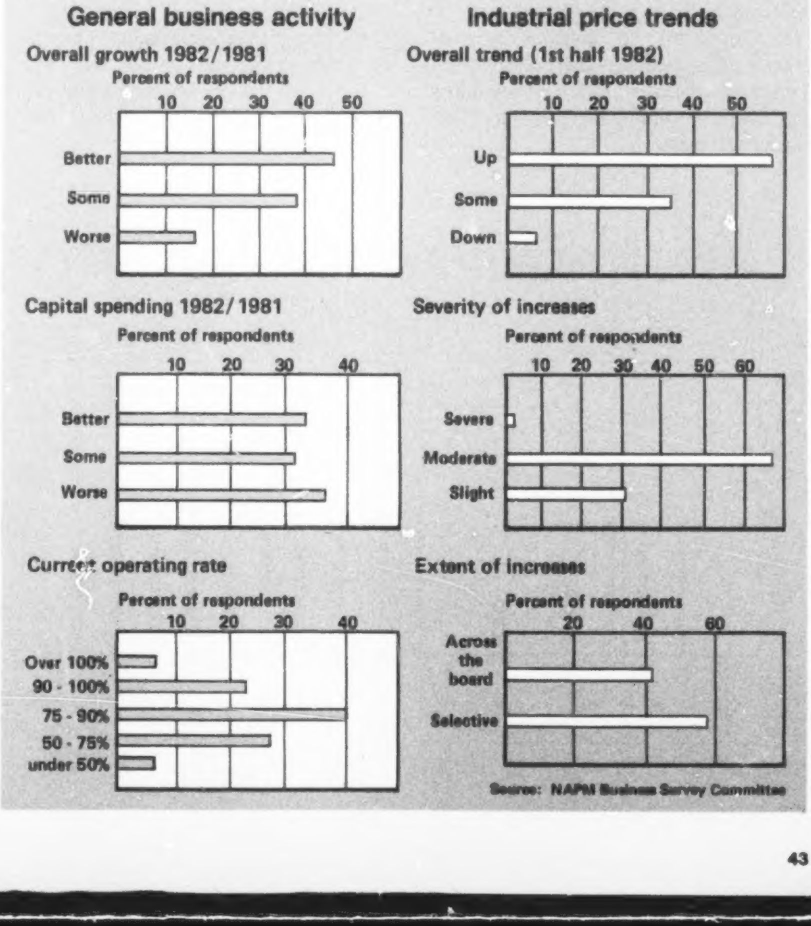
The ample or even more-than-ample supply situation is also confirmed by the fact that almost nothing is in short supply. Charles T. Haffey, chairman of the NAPM Business Survey Committee, notes that in the few instances where there are problems, they stem more from a lack of demand for a coproduct than any inherent shortage of production capacity.

Haffey also has some fairly optimistic thoughts on overall inflation trends. He notes that the current relative price easiness (only about 25% of responding NAPM members now report hikes—the lowest level in more than four years) can be expected to spill over into early 1982.

Nor is he all that worried over the medium term (the second half of the year)—noting that increases over that period will probably also remain in the moderate range.

The NAPM spokesman emphasizes, however, that this is all based on the assumption that any 1982 business improvement will be slow and gradual. All bets would be off, he hastens to add, in the unlikely event the economy really begins to zoom up again. ***PW***

**What's ahead for 1982: an NAPM perspective**



Source: NAPM Business Survey Committee

**Interview with Dr. Louis J. Paradiso**

# Another tough year ahead

PurchasingWorld
FORECAST 82

## The 1982 economy just isn't shaping up the way everyone had hoped

**By Robert S. Reichard, executive editor**

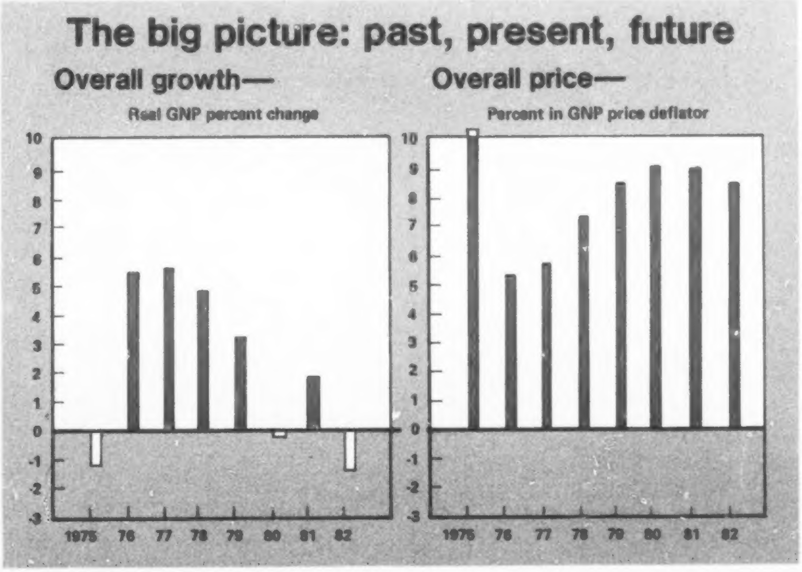
Reaganomics has been a major disappointment to Dr. Louis J. Paradiso, economic consultant to the First National Bank of Boston and the government's Office of Business Economics. And, says Paradiso, "There's little to indicate that the approach will be any more successful in the year immediately ahead."

*PurchasingWorld*'s consulting editor on economics and government is far from bullish in his projections for 1982. In fact, he believes present Washington policies will neither set the scene for lasting recovery or make that much of a dent in the underlying rate of inflation.

With that as his preface, here's how he sees the year ahead shaping up:

■ **Real growth:** The recession has about another six months to go. And even a fair-sized second-half recovery won't be enough to prevent real GNP for the year as a whole dropping to about 1.4% (versus about a 1.8% increase in the year just ended).

■ **GNP price level:** The recession will make for some moderation from 1981's close-to-9% advance. But it won't be all that impressive. Thus the increase for the year as a whole is put in the 8-9% range—with maybe even some slight acceleration by the third or fourth quarter.



■ **Producer prices:** Increases in the finished goods category (including food) will fall in the 7-9% range—with the upper limit likely toward yearend. Again that's not all that much of an improvement over 1981's estimated 8.8% advance.

■ **Wage pressures:** Hourly pay boosts may drop a bit (8½ in 1982 versus 10% last year). But with the recession preventing any rise in productivity, unit labor cost increases can also be expected to remain at around the 8½% level—only about one-half a percentage point under the estimated 1981 figure.

■ **Inventories:** Some paring is anticipated over the first half of the year—to be followed by modest July-December accumulation. For the year as a whole, total nonfarm stock accumulation will be less than $5 billion (GNP basis)—some $10 billion or more under the 1981 increase.

■ **Profits:** Another poor year looms ahead—with pretax totals off 10%—on top of last year's 8% decline. Profit margins should also be down significantly.

■ **Capital spending:** No miracles here, either. A small, second-half improvement in real terms will do little more than offset a poor first six months—thereby making 1982 the second year in a row of relatively flat investment.

■ **Factory operating rates:** Much of the lackluster capital-spending picture can be traced to low factory utilization levels. The pertinent figures here: 75% in the first half of 1982 and only slow improvement later in the year.

■ **Unemployment:** This could be a ma-

jor headache. Jobless rates could approach the 9½% level over the next few months—and even by yearend they could still be in the high 8% range.

■ **Interest rates:** The current decline still has a way to go—with the prime rate dropping to under 15%. But a turnaround into the 18-20% range is possible later on in the year.

■ **Housing:** Recovery will be quite modest. Only about 1.2 million starts are likely for 1982—well under needed levels and not that many more than the 1.1 million of the year just ended.

■ **Autos:** Again, no great improvement. Sales (including imports) will be lucky to reach the 9-million level—pretty much in line with poor 1980 and 1981 performances.

As suggested earlier, Dr. Paradiso's less-than-sensational projections are influenced by his disappointment over the "supply side" economic approach of the Reagan Administration. In his own words, "The federal programs now in place just do not provide assurances of a strong and lasting recovery."

What's needed, he adds, are (1) a toning down of scheduled tax reductions, (2) a change in tax cut emphasis—one giving more aid to the middle and lower classes, and (3) a lower growth in defense spending—but one that's consistent with the goal of providing maximum security for the U.S.

Inflation remains another key Paradiso concern. Aside from the impact of high defense spending, he feels wage rates may well begin to accelerate again when the economy turns up in late 1982 and 1983. On the latter score, he says some kind of tax disincentive or other program will be needed to put a lid on pay boosts over the longer pull.

Keeping all these caveats in mind, here's a more detailed breakdown on what this veteran business analyst sees ahead for the next 12 months:

***PurchasingWorld:*** **When will the recession end?**
Paradiso: I would expect it to last until midyear—with declines of 3.5% and 2% at annual rate seen for the first and second quarters, respectively. But the scheduled 10% tax cut should make for a third quarter turnaround—with the second half advance put in the 3-4% range.

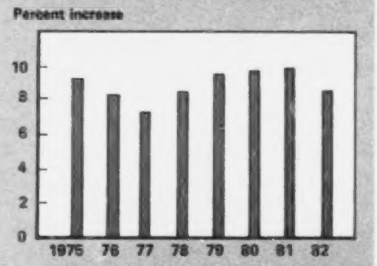
**What does this mean for 1982 as a whole?**
The year should average about 1.4% under the 1981 level—a lot more bearish than even the modified 1% increase suggested by the Administration.

**Will there be much price relief?**
There will be some modest early 1982 deceleration, sparked by (1) smaller food and oil increases and (2) the buyers' market stemming from lower overall demand. But I don't look for any dramatic improvement.

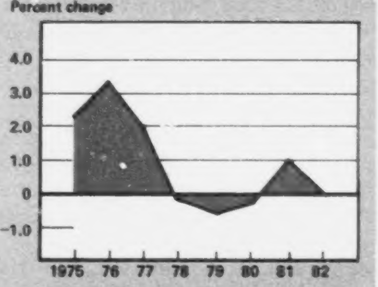
**Could you be more specific?**
During the four quarters of 1982, the overall GNP price deflator should be rising at an 8-9% annual rate—with some acceleration toward yearend. For

## A closer look at labor cost trends

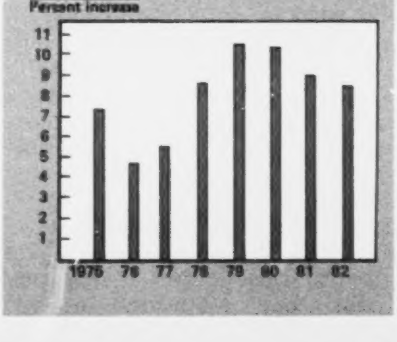
### 1. Wage hikes could ease a bit



### 2. But productivity gains will disappoint



### 3. Result: little unit labor cost relief



Dr. Paradiso is a consultant to The First National Bank of Boston and the U.S. government Office of Business Economics. Prior to his retirement from government service in 1969, he held numerous positions as a statistician and economist in the Department of Commerce, the latest being associate director of the Office of Business Economics.
He has been a university instructor in mathematics and statistics and was adjunct professor of marketing, New York University, for 15 years.

the year as a whole this suggests about an 8½% advance—not that much better than the 9% rate of the year just ended.

**What are your major assumptions here?**
For one, it's premised on the modest second half pickup I detailed before. More important, it presupposes average weather conditions, no major strikes, and a relatively calm international climate.

**Will producer prices show a similar trend?**
Yes. On the finished goods level, totals (including food) should be moving up in the 7-9% range—with the bigger gains occurring after midyear.

**How about consumer prices?**
There are some positives here—such as the smaller food and oil prices noted above. Then, too, mortgage rates (another heavily weighted cost-of-living item) should also ease up a bit. But such services as transportation and medical care could continue to rise at near-double-digit levels.

**Can we expect much labor cost relief?**
Yes and no. Private nonfarm wage rates will slip from 10% last year to only about 8½% in 1982—as labor's bargaining power diminishes and management (hit by a profit squeeze) stiffens its stand.

**So why aren't you more optimistic?**
The trouble is that the recession just about rules out any productivity gain, versus about a 1% increase in 1981. And without this offset, you can expect unit labor costs to rise almost as much as in 1981—8½% this year versus 9% last year.

**Whither inventories?**
They are not in all that bad a shape. But declining sales are beginning to take their toll. As such, I would not be surprised to see a modest nearterm reduction. But a turnaround after midyear could bring about a total yearly nonfarm business accumulation of $3-5 billion.

**Won't that help bolster GNP?**
Not by all that much when you consider that this projected 1982 gain is well under last year's big $15 billion accumulation.

**How will corporate profits fare?**
Poorly. For 1982, pretax earnings may be 10% under last year. And profit margins should also be substantially lower.

**Won't this impact on capital spending?**
Undoubtedly, lower earnings will act as a braking force. So will the high price of money and low operating rates. Keep in mind on the latter score, companies do not expand when much of their existing capacity is idle.

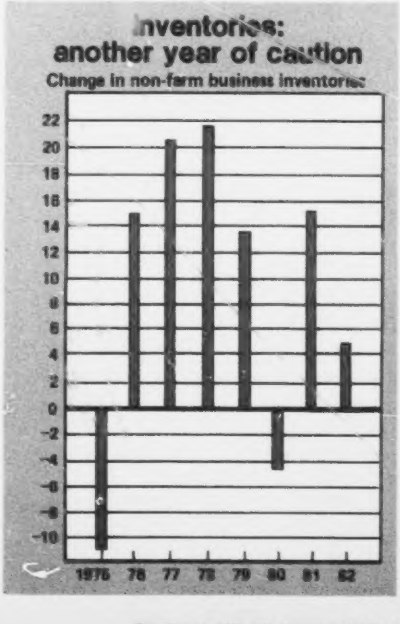
**How low will factory utilization rates be?**
They could drop to near the 75% level over the next few months, and then improve only very slowly.

**What are your capital spending estimates then?**
Real nonresidential fixed investment (GNP basis) will show little change this year—though some improvement might occur after midyear. To be sure, some companies may expand their potential. But overall additions to capacity will be relatively small—with most of the outlays going for replacement and modernization.

**Will industrial production fall as much as real GNP?**
Probably more, because this is a more volatile yardstick on both the upside and downside of the business cycle. Last year (1981), industrial output rose 3%—nearly twice as fast as the 1.8% real GNP advance. This year factory output could be off 2½%—again, considerably more than the 1.4% decline anticipated for real GNP.

**What does this imply for unemployment?**
Falling production schedules suggest the jobless rate could rise to as high as 9½% in the first half of the year. By yearend the figure should subside—but only to the still-high 8% level.

**How will interest rates fare?**
Recessions always bring declines here as credit demand weakens. And this time should be no exception—with the prime falling to under 15%. But there could be renewed upward pressure after midyear—on a combination of a rising Federal deficit (sparked by a



Inventories: another year of caution

Change in non-farm business inventories

10% tax cut) and the expected upturn in business activity.

**What would these mean in terms of rates?**
I would not be surprised to see a climb back into the 18-20% range toward yearend.

**How will this impact on mortgage rates?**
These always lag the general interest rate trend—so they should continue to edge lower through most of 1982.

**Won't this provide a big spur to housing?**
Not really. Rates will still be high by historical standards. Then, too, there are today's sky-high prices—prices which are pushing many prospective home buyers out of the market.

**So what do you see ahead for new housing starts?**
There will certainly be some improvement from the recent under-1-million rate of recent months. But overall, I don't see 1982 totals rising above 1.2 million units, though the figure could well be above that (at annual rate) toward yearend.

**Any thoughts on other consumer spending areas?**
Families are not overextended from a credit perspective. But increases in outlays are likely to be quite small in real terms (1-2% at annual rate) until the second half when a tax cut should help. After that, a 3-4% rate of advance is possible.

**Will autos share in the increase?**
Here, too, very high prices will remain a problem. So, even with an expected second-half tax fillip, I would think the industry would be hard pressed to sell 9 million units—only a bit more than the 8.6 million (including imports) that cleared the market in 1981.

**How bad a budget deficit do you envision?**
A relatively poor year, tax cuts, rising defense spending, and stepped-up unemployment benefits all suggest a red-ink figure of $80-100 billion in 1982. And the figure could grow even larger the following year.

**Will this aggravate inflationary pressures?**
Not really—except that it will act to keep interest rates well above historical levels.

**Will we still be faced with a big trade deficit?**
No doubt about it. In 1982, the excess of imports over exports could reach $35 billion—about $2 billion more than last year. Part of this will be due to a favorable exchange rate which attracts imports and discourages exports.

**Will the dollar then remain strong?**
All indications suggest it will—not only over the next few months but probably even into early 1983.

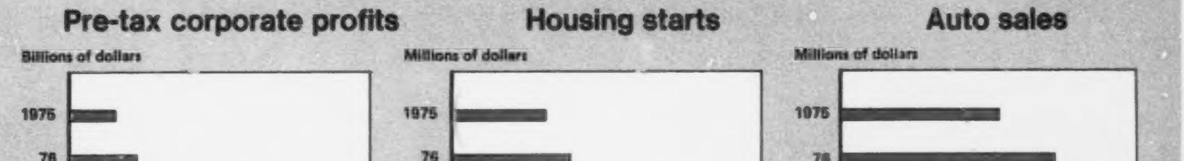
**Any advice for purchasing managers?**
I would try to time any inventory buildup later in the year to coincide with the low point in interest rates. But this will take some doing given the volatility of credit markets these days.

**What about buying strategy in a basically sluggish market?**
I would suggest plenty of shopping around—particularly in sectors where operating rates remain under the 80% level. Also, keep in mind that any recovery will be uneven—suggesting that while some prices may begin to firm in the second half, others will remain easy for quite some time.

**Should defense spending repercussions be incorporated into any overall purchasing strategy?**
Not immediately, but certainly over the longer pull. This could impact in several ways—in the form of longer leadtimes, rapidly rising prices, and even labor shortages in some skilled areas.

Finally, I would like to impress buyers on the need to monitor the overall economy on a month-by-month basis. Forecasts are always hard to pinpoint when business shifts from minus to plus. And the uncertainty could be even greater this time around as the Administration continues to experiment with the still questionable theory of "supply-side" economics. ***PW***

## Other key 1982 trends


**Pre-tax corporate profits** **Housing starts** **Auto sales**

# Labor leaders take a new tack:

PurchasingWorld
FORECAST 82

# Job security to be major bargaining point

Union leaders call 1982 the "year of the give-back," as they prepare for negotiations in such weakened industries as trucking, rubber, autos, and airlines.

Forced to choose between fat contracts and keeping jobs, several union leaders say they will opt for job security. The result for employers in most industries bargaining next year will likely be moderate wage increases (perhaps even a wage freeze in some transportation contracts), looser restrictions on work rules or job classifications, and willingness to talk about productivity. In return, employers will be pushed hard to guarantee workers' jobs and to contract out less work that could be done by full-time employees. First-year wage increases could drop to 8.8% in 1982 settlements, from 11.5% in the first nine months of 1981 bargaining, says the Conference Board, a business research group.

This conciliatory bargaining atmosphere has different causes in different industries, but it is deepened for all bargainers by the current recession and the rising unemployment rate—8% by October—and is likely to keep climbing into 1982. The outlook was so bleak that six of 13 unions negotiating in the railroad industry in late 1981 chose to settle unusually early and surprisingly moderately on November 10 rather than let talks drag on into 1982 when they felt they would get less rather than more out of employers.

Even the oil industry, which is still highly profitable and which bargains with its major union next year, is cutting workers because of mergers, reduced use of capacity, and increased automation. Thus, top officers of the Oil, Chemical, and Atomic Workers (OCAW) concede that they will make moderate demands in return for promises of two years of guaranteed employment for all workers.

There is, of course, a negative side of bargaining during a time of recession and industry weakness, and that is unpredictability about rank-and-file reaction. Having suffered both job losses and drop in real earnings due to inflation, many workers are not in a compromising mood to the extent that their leaders may desire compromise. The result could be renewed militancy on the part of membership, which in turn could cause sanctioned or wildcat strikes or refusal to ratify moderate agreements.

As one top industrial union president says, "It is going to be hard as hell next year to walk that line between helping industries stay alive and keeping our members content." Optimistic sales or profit pronouncements by corporate brass trying to keep customers and stockholders happy only make workers more determined to ask for more pay, he notes (and privately tells chairmen of boards with whom he sometimes talks).

Hard bargaining by employers next year could yield average annual pay increases of 8-10%, instead of the 11-12% range prevalent in major industries the past three years.

The history of the three years since most of the expiring contracts were last signed has worked to the disadvantage of many employers *and* unions involved. The trucking industry has seen dozens, if not hundreds, of bankruptcies of big, medium, and small companies because of a weak economy and deregulation of the industry, and the International Brotherhood of Teamsters has seen at least 55,000 of its dues-paying members lose their jobs in the process.

In the auto industry, hard hit by high interest rates and tough import competition as well as a weak economy, the agonies of Chrysler have quickly been followed by the woes of Ford and the complaints of General Motors with a total 300,000 layoffs in a 1.5-million member union. Chrysler received tremendous concessions from the UAW but only as a condition of uncertain survival.

Some airlines have been able to work out deals with pilots, attendants, and mechanics which call for pay freezes or even cuts in exchange for job security and deferred—and also uncertain—profit sharing. Still, at least 10% of pilots are on "furlough," a euphemism for a layoff that could well be permanent.

Officially, the first negotiations out of the box in 1982 are those of the oil refineries and the Oil, Chemical, and Atomic Workers (OCAW). But, in fact, the pattern may be set by the rail unions, which began bargaining this year (and of which some unions settled at about a 34% increase for 39 months in wages and fringe benefits). Another pattersetter may be the Teamsters, which agreed to reopen negotiation early and which could settle well before the March 31 deadline on their most modest contract in years.

Here is the outlook and early signal-sending, industry-by-industry:

■ **Trucking:** The top leadership of the Teamsters has changed, with the death of Frank E. Fitzsimmons earlier in 1981 and the accession to the top of chief bargainer and vice president Roy Williams to the presidency. Meanwhile, the fate of both employers and employees has gotten worse, so that many Teamster officials now wish they had passed up or delayed a cost-of-living adjustment (COLA) payment in April that employers sought in October of 1980. The truckers then pleaded in vain for a reopener of the contract a year and a half before it was due for renegotiation.

Williams is tougher than Fitzsimmons and will take political heat from the rank and file if need be. At the same time, Williams offers a better understanding of the trucking industry than any other top Teamster. The result could be a pay freeze for some months, up to a year, and concessions on work rules, especially among short-haul carriers who are signatory to the national master freight agreement.

But that industry is not only weakened by deregulation and a depressed economy, it is also more fragmented. As a result, bargaining will be more chaotic in 1982 than in any year since Jimmy Hoffa initiated national bargaining two decades ago. In the meantime, Williams has agreed to reopen the contract early, and to negotiate in December as if it were March. He may set a moderate trend that could signal a turnaround from inflationary labor settlements of recent years, if he moves fast.

■ **Petroleum refining:** Earnings of refiners have been strong and so has their cash flow, in spite of some lapses in recent months. Thus, OCAW in its January negotiations will try to win strong, if .not extraordinary, wage gains. But at the same time, OCAW President Robert Goss makes it clear that he is willing to make concessions on work rules and job classifications to keep his members employed.

Over the two years of the current contract, OCAW has suffered 3000 layoffs out of its 55,000 membership in oil refinery units. Goss wants a promise that his workers will not be laid off over the next two years, in exchange for having his workers do work they did not do before in a blurring of task definitions—and to do the kind of cleanup work that refiners have routinely farmed out to contractors.

Goss is aware that output of refineries is now at only 70% of capacity and that consumer demand is down some 8%. He worries that when big mergers take place, as they are now doing, his members will lose bargaining rights in the process. Finally, he sees automation taking jobs, as old plants are replaced by new ones.

Two years ago, OCAW was pushing for COLA, although it is not traditional in the oil industry. This year Goss is not seeking COLA, although he is pushing for free health care for his members and wants what he has called a substantial wage increase. He called a long strike last year during a wage reopener; this year, he says he is willing to bargain past the January 7 deadline, as long as progress is being made. "It is a different climate now," he says.

■ **Airlines:** Already, Eastern Airlines and Braniff, not to mention several

**Summary of major labor contract expirations**

**Calendar year 1982**

| Industry | Major companies | Unions | Workers covered | Expiration dates (other significant dates) |
|---|---|---|---|---|
| Petroleum refining | Texaco, Standard Oil Company (AMOCO) Atlantic Richfield, Shell, Mobile, Texaco, Exxon and others | Oil Chemical and Atomic Workers (OCAW) and others | 37,300 | January 7 |
| Trucking | Over-the-Road and Local Cartage | Teamsters | 432,150 | March 31 |
| Rubber | Goodyear, Firestone, Uniroyal, Goodrich | Rubber Workers | 58,750 | April 19 |
| Clothing | Affiliated Dress Manufacturers, Greater Blouse, Skirt & Undergarment Assoc., National Skirt & Sportswear and others | Garment Workers | 164,800 | May 30-31 |
| Electrical products | General Electric, Westinghouse | Electrical Workers (IUE, UE) | 147,600 | June 30 - July 15 |
| Meatpacking | Armour, Swift, Wilson, Rath, Oscar Mayer, John Morrell, Dubuque | United Food and Commercial Workers | 49,250 | August 31 |
| Automobile | General Motors, Ford, Chrysler | Auto Workers | 576,400 | September 14 |
| Farm implements | International Harvester, Deere, Caterpillar, Allis Chalmers | Auto Workers | 101,150 | September 30 |
| Airlines | American, United, Eastern, Republic, Frontier, TWA and others | Pilots (ALP), Mechanics (IAM and TWU), Teamsters and others | 45,850 | Feb-Dec |
| Aerospace | Rockwell, General Dynamics, United Aircraft, Hughes | Electrical Workers (IUE, IBEW) Machinists, Teamsters | 37,750 | Feb-Dec |

Source: U.S. Labor Dept.

smaller carriers, have won wage rollbacks of 10% or wage freezes from employee unions, and it seems quite likely that this give-back pattern will continue, as airlines struggle to keep their market share in an atmosphere of deregulation, high interest rates, and recession.

Possibly the most imaginative settlement in 1981 was the one between the Air Line Pilots Association (ALPA) and United Air Lines. After months of joint committee exploration of productivity and other problems—and a postponement of contract deadline—the two sides came up with a contract that called for wage and other concessions and a promise of no layoffs while United tries to get new routes going. The result is that a number of pilots who are not flying are instead out selling a new air express service that United is touting. Chief ALPA negotiator Arthur Brennan is frank to say that he foresees such unusual accomodation in 1982 as well.

The big question mark in 1982 airline bargaining concerns mechanics, many of whom belong to the International Association of Machinists. That union takes a tougher line than many in bargaining, often saying that it would rather take layoffs than make wage or work-rule concessions. Machinists argue, among other things, that concessions are often followed by layoffs, anyway. They are generally more militant, but the rank and file sometimes defies top leadership to make accomodations. Hence, machinists agreed to enter into an employee ownership plan for Continental Airlines this year in an effort to fend off a takeover attempt by Texas International, even though IAM headquarters opposes such plans.

In all, it will be an airline-by-airline situation, with competition setting the stage for compromise, if not union give-backs.

■ **Rubber:** Possibly the hardest hit industry of all, rubber is facing foreign competition in tires and shoes, depressed auto sales, and all the economic realities hurting everyone else. The United Rubber Workers made significant concessions in 1980 and 1981 on a company-by-company basis, and it is hard to see how this will not affect industrywide negotiations in 1982.

The wild-card factor in 1982 is that Peter Bommarito, for years the URW president, has retired, leaving Milan Stone in his place. Any time a new president takes over a union, the temptation is strong to prove himself tough in his first major negotiation. It has led to turmoil in recent years in oil, railroad, coal, and postal bargaining, and it could lead to illogical confrontation, if not strike in rubber, although Stone has not made militant sounds so far.

■ **Automobile:** Long the most telltale negotiations in the leadoff year of new bargaining (along with steel in the second year), the auto talks in 1982 are no exception.

The concessions of more than $1-billion made by UAW at Chrysler whetted General Motors and Ford appetites for similar, if not such extensive, give-backs to help them compete with Japanese car makers. They're talking about profit sharing for the first time in years, as a lure to the UAW to make concessions. But it is job security that the UAW wants now, and if auto makers can capitalize on that need, they can have success at the bargaining table. Already, Ford has won work-rule concessions in recent months at a half-dozen plants in Michigan and Ohio in return for keeping those plants open. Winning national wage concessions will be harder, but it can happen.

PurchasingWorld FORECAST 82

What is least likely is a strike. Fraser and his top leadership will extend negotiations for some time, standing between an unpredictable membership and an ailing auto industry, before permitting a disastrous confrontation.

■ **Electrical equipment:** This is the one industry where the key unions—the International Union of Electrical Workers, the International Brotherhood of Electrical Workers, and the smaller United Electrical Workers—might run against the trend and drive hard for the kind of pay raises that were prevalent in the last round. And, in dealing with the mighty General Electric and Westinghouse Electric, the unions are talking with tough negotiators who will be loathe to be the most concessionary employer group of 1982. The result could be a strike in electrical industry bargaining.

"We're going to tell GE that we don't make cars," says one of the top union negotiators. He says his members will be seeking good wage increases, including a better COLA formula paying quarterly instead of semiannually, protection against the growing use of robots to replace workers, and an agreement to keep the union shop where they have it and install it where the companies do not now have it.

Where there is bargaining in the aerospace industry, higher patterns are likely there than in the average of all manufacturing, just because the defense buildup is making aerospace healthier than it has been in years. Both the UAW and the IAM bargain in aerospace.

■ **Other bargaining:** Across the country, in smaller towns and in smaller companies, it is sometimes the bargaining in retail food and construction that sets the pace. In 1982, the Joint Labor-Management Committee of the Retail Food Industry will help to keep strike activity and outrageous settlements to a minimum, as it has done for the past five or six years, by anticipating problems and points of friction this year. Additionally, the 1979 merger of retail clerks and meatcutters into the United Food and Commercial Workers has eliminated many of the wage whipsawing and jurisdictional fights that long stood in the way of productive bargaining.

As for construction, the inroads made by nonunion construction companies into the unionized sector has helped to create an atmosphere of moderation.

The result, with the caveat that some workers will want to catch up for recent years' loss of real income and may reject calls from moderation from their leaders, is likely to be a year not only of labor peace but of economic realism unlike any lead year in a long time. ***PW***

# Vehicle leasing shows big gains

The trend toward car and truck leasing is still going strong.

Last year, for example, some 6.85 million units went the lease-rental route. That's a 3% gain over the previous year despite a stagnating economy. And a similar increase is anticipated when the final 1981 tally is taken.

However, the figures, part of a new Hertz report, suggest that there are some significant changes in the overall pattern. Specifically, users are:

- Keeping their vehicles longer. "Holding time" at last count was up about 3%.
- Driving fewer miles. The miles-per-unit number was off about 5% over the past year.
- Downsizing in line with efforts to cut costs.

To put growth in better perspective, Hertz notes that lease-rentals over the past ten years have increased 70%—almost double the 44% increase in overall trucks and cars on the road.

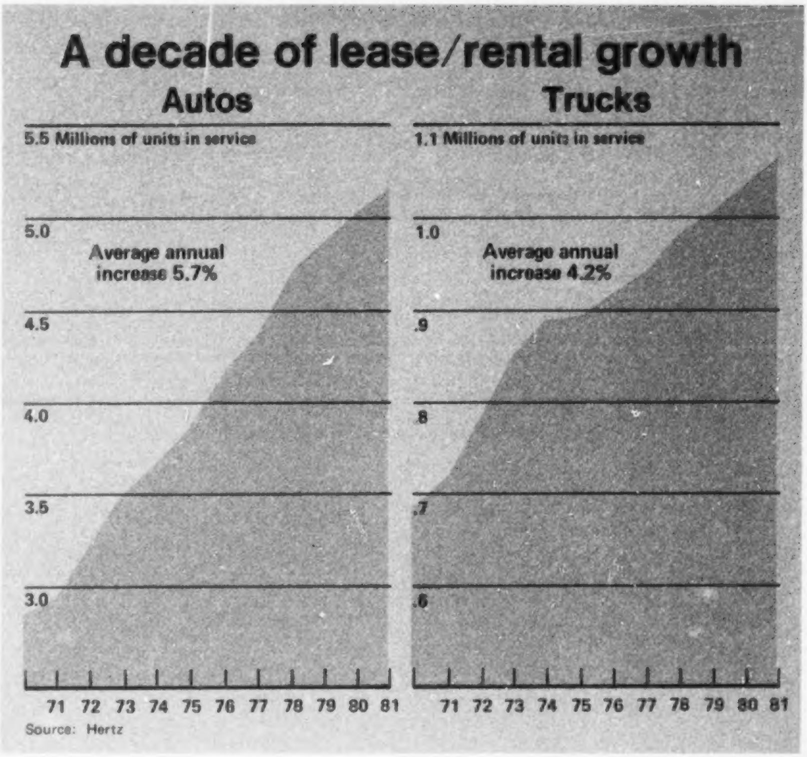
Hertz also estimates that lease-rental cars and trucks (which account for less than 4% of the 156 million units on the road last year) rolled about 145 million vehicle miles—some 10.5% of the overall 1.3777 trillion miles run by all vehicles.

These figures are quite a contrast to 1960 levels when lease-rental units amounted to about 1.2 of the 74 million units then in service. At that time, lease-rental vehicles rolled just 17.8 billion miles—about 2.5% of the 719 billion total vehicle miles travelled.

Also worth noting: Although total lease-rental units on the road remain a relatively small percentage of total cars and trucks, the ratio of new lease-rental units to all new U.S. vehicles sold has climbed sharply—from about 0.3% in 1950 to 3.7% in 1960, 14.3% in 1970, and 20.6% last year.

For cars only, the ratio has shot up even more dramatically—from 0.2% in 1950, to 3.4% in 1960, 15.4% in 1970, and 24.1% in 1980.

Equally significant, continuing growth is anticipated. Indeed, many believe the advance will continue at past rates—pushing industry dollar volume into the $65-70 billion range by the mid-1980s. ***PW***



Source: Hertz

# More pay for foreign service

If you're offered a job overseas, make sure you get enough extra to compensate for higher foreign costs.

Just how much more should you ask for? One series of estimates comes from Organization Resources Counselors, Inc. This New York City-based consulting firm figures that in some areas of the world a more-than-tripling of your U.S. salary would be in order.

The firm provides these index numbers for some 13 overseas centers with a significant number of expatriates compared to Washington, D.C. (which is assumed to be a typical U.S. city):

| | |
|---|---|
| Washington, D.C. | 100 |
| Bonn | 159 |
| Hong Kong | 180 |
| Johannesburg | 176 |
| Logos | 311 |
| London | 174 |
| Mexico City | 156 |
| Paris | 179 |
| Rio de Janeiro | 175 |
| Riyadh | 257 |
| Rome | 143 |
| Singapore | 168 |
| Tokyo | 243 |
| Toronto | 124 |

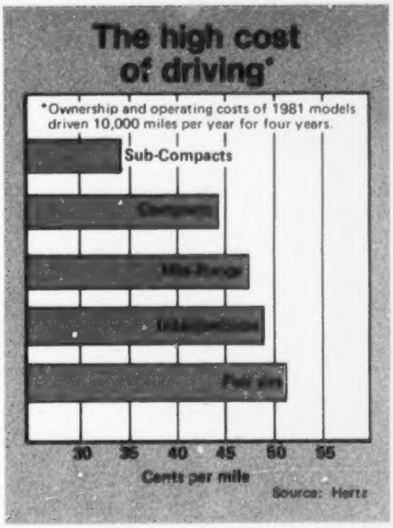
Note that Washington has an index value of 100. Thus, the reading of 159 for Bonn suggests that a 59% premium is recommended for duty in the German capital.

Elbert C. Artmann, who worked up these numbers for ***PurchasingWorld,*** further points out that the additional pay is designed to cover five separate factors—including (1) separation from family and friends (the foreign service premium), (2) exposure to difficult health and political factors (the hardship premium), (3) differences in the sort of goods and services, (4) differences in the cost of housing, and (5) differences in the cost of schooling.

To be sure, not all factors apply to all locations. On the other hand, there are other cost factors—including taxes, household relocations, home leave transportation, etc.—which are not included in these index calculations.

Also worth noting: The family profile used to calculate the indexes was made up of a husband, wife, and two children of high school age—with the husband's base salary in Washington coming to $50,000 a year. From that assumption, the indexes suggest a salary of $79,500 for a position in Bonn, $90,000 in Hong Kong, etc. ***PW***

◄ Circle 125 on card



# Auto costs outpacing inflation

Double-digit inflation may be subsiding. But you'd never know it by looking at car ownership and driving costs.

It may seem hard to believe, but a typical 1981 compact—driven 10,000 miles a year and kept for four years—now costs 44.6¢/mile (chart alongside)—up by a whopping 18% from year-earlier levels.

And much the same trend toward increasing costs is apparent in most other types of cars—with the exception of subcompacts where the introduction of stripped-down models managed to effect a fractional decline.

The above figures, based on a new Hertz study, makes this the third successive year of double-digit increases—enough to put per-mile outlays up 158% above pre-OPEC 1972.

But gasoline tags are no longer the major upward force. The biggest increases, according to the big lease-rental firm, stem from hefty new hikes in both interest rates and depreciation. The latter is particularly burdensome now—for a compact it eats up 15.2¢/mile, roughly one-third of all ownership and operating costs. ***PW***

# Resin switching offers cost breaks

Resin switching should continue to be a significant factor in plastic markets.

Business Communications Co. (BCC), a Stamford, Conn., consulting firm, claims that the biggest potential lies in areas where downgrading or lightweighting is feasible.

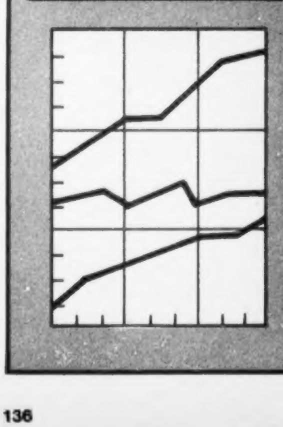
As such, adds BCC, the per-pound price relationship between resins is less important today than the relative advantages of injection molding versus thermoforming. And within those categories, conventional versus thin-wall injection molding and melt-phase versus solid-phase forming are important cost considerations.

In any event, the firm notes that the vulnerability that polystyrene is feeling because of its new, higher price level is somewhat counterbalanced by its ease of thermoforming and foaming and by the high percentage of PS consumption that is accounted for by these processes.

By the same token, the potential for polypropylene as a replacement for other resins has more to do with the property enhancement that can be attained through biaxial orientation than with transitory price weakness.

Looking at recent developments, BCC estimates that as much as 150-200 million pounds of annual PS volume has been lost to PP. And the same amount of high-density polyethylene may be vulnerable to substitution in injection molded food packaging—unless protective measures are taken through (1) redesign, (2) more emphasis on HDPE thermoforming technology, or (3) greater use of very high melt index resins for injection. ***PW***

## Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 81.00 | 86.00 | 105.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 73.00 | 74.00 | 101.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.65 | 0.69 | 0.85 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.60 | 0.61 | 0.71 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.61 | 0.65 | 0.81 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.350 | 0.395 | 0.435 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.26 | 0.29 | 0.38 |
| Alum., mixed clip., E. wholesale buy, dlvd., lb. | 0.265 | 0.320 | 0.405 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.150 | 0.155 | 0.135 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.17 | 0.22 | 0.27 |
| Passenger tires, mill purchase, ton | 15.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 10.00 | 20.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 7.00 | 10.00 | 13.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.10 | 0.13 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.18 | 0.26 | 0.38 |

Circle 164 On Card →

# Purchasing managers expect short leads to continue

The sagging economy is making for further modest shrinkage in overall delivery waits. If there's any doubt on this score, take a look at ***Purchasing World***'s exclusive leadtime index (chart, opposite). It's been below the neutral 50 mark for six straight months now.

And most industrial purchasing executives expect the downtrend to continue a while. In ***PW***'s annual "what's ahead for the new year" survey, some 54% of the respondents are looking forward to some further narrowing in overall leads—far outweighing the small 7% who fear some deterioration.

And there's an explanation for even this small 7% reading. Specifically, those fearing some stretchout say that it probably will be due to producer production cutbacks rather than any inherent capacity squeeze. This conclusion, incidentally, is confirmed by the latest NAPM business survey report which shows more than 7 out of 10 companies operating at under 75% of their potential.

Another sign of relative easiness: Some 75% of the responding PMs now report faster deliveries—five times as many as the small 5% who noted some slowdown.

But the proof of the pudding is in buyer inventory strategies. With little or no worry about delivery performance, most PMs continue to cut stocks—with 37% now on the inventory-paring bandwagon—more than twice as many as the 16% who are still adding. **PW**

## Leadtimes and availability

**Chicago:** Pigment leads have dropped to a little over a week. Also on the downside are aluminum coil (to 6 wks) and aluminum bars (to 8 wks). Other metals remain unchanged—copper and brass sheet are out at 5 weeks, c-r steel sheet at 4-5, h-r sheets at 2-3, and light and heavy plates (both at 2 wks).

**Cleveland:** Waits on both polyethylene and PVC resins have dropped a week (to 2-3). But paints are out another half week (to 4 weeks in the case of coil coatings and 2-3 in the case of maintenance types). Other unchanged leadtimes (in weeks): corrugated cartons (3), 2-ply fiber drums (2), folding boxes (4), and skids (3).

**Houston:** Steel has come in significantly—with mill waits now down to only 4-8 weeks. One exception: oil country goods, still at 6-12. Carbon alloy heat exchangers have also dropped a bit (to 7-10 months). Ditto, field-fabricated light-walled pressure vessels (to 15-18 months from the previous 15-20 months).

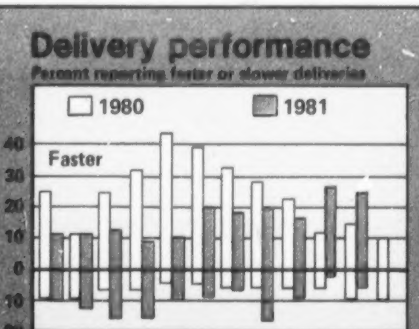
**Los Angeles:** The trend toward shorter waits continues. Examples of new lower leads (in weeks): galvanized steel (6), copper tubing (7), copper fittings (5), grey iron castings (2), brass castings (3-5), insulation materials (4-6), pumps (4), electromechanical devices (8), and heavy duty steel (8-9).

**Philadelphia:** Little change over the past month—with these continuing waits in weeks: corrugated (3), foam products (2-3), cellophane (4-6), folding cartons (6-8), steel sheet (4-6), plastic sheet from distributors (2-4), bearings (20-24), wirebound resistors (18), and linear ICs (12).

**Pittsburgh:** Paper-ply fiber drums have come in (from 6-8 weeks to only 3-4). Most other items remain easy. Examples: corrugated boxes (3-4), standard steel drums (2-3), nonstandard steel drums (12-16), groundweed paper (6-8), natural kraft paper (4-6), lumber (2-4), plastic films (2-4), and steel strapping (2-3).

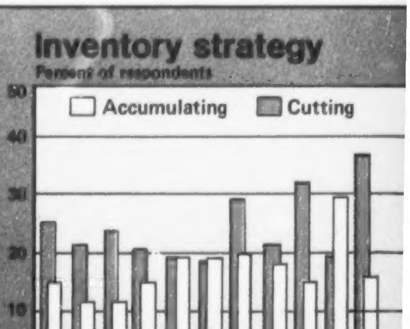
## PW monthly procurement status report

Source: NAPM



Delivery performance

Percent reporting faster or slower deliveries



Inventory strategy

Percent of respondents

# Leadtimes (in weeks)

## Steel

| | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 9 |
| Plate (Phil) | 5 | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2½ |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2½ |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 6 | 9½ | 13 |
| Galvanized (Chgo) | 4½ | 4½ | 9 |
| Structurals (Chgo) | 2 | 2 | 2½ |
| Structurals (Hous) | 17 | 17 | 30 |
| Tubing (Phil) | 10 | 10 | 10 |
| Grey Iron Castings (LA) | 2 | 5 | 6 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 22 | 22 | 22 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chgo) | 10½ | 10½ | 10½ |
| Capacitors (Chgo) | 5 | 5 | 7 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 8 | 9 | 10 |
| ICs (Linear) (Phil) | 12 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 6 | 6 | 6 |
| Relays (Chgo) | 12 | 12 | 12 |
| Resistors (Chgo) | 8 | 8 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2 | 2 | 2½ |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | ⅕ | ⅕ | ⅕ |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 7 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 7 | 3½ |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 3½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Straping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | 2½ | 3 | ½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3 | 3 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2½ | 2 | 2½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 3½ | 2½ |
| Polyethylene Resin (Pgh) | 3 | 3 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 4 |
| PVC Resin (Pgh) | 3 | 3 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

## Paper

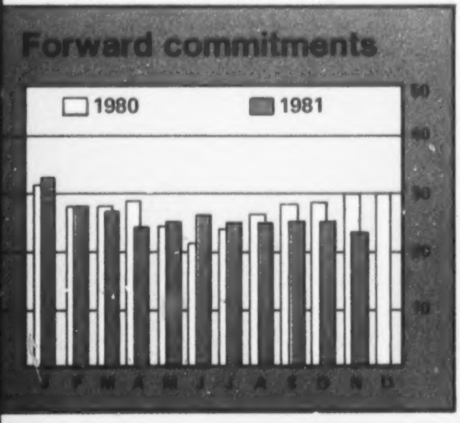
| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

## Non-Ferrous

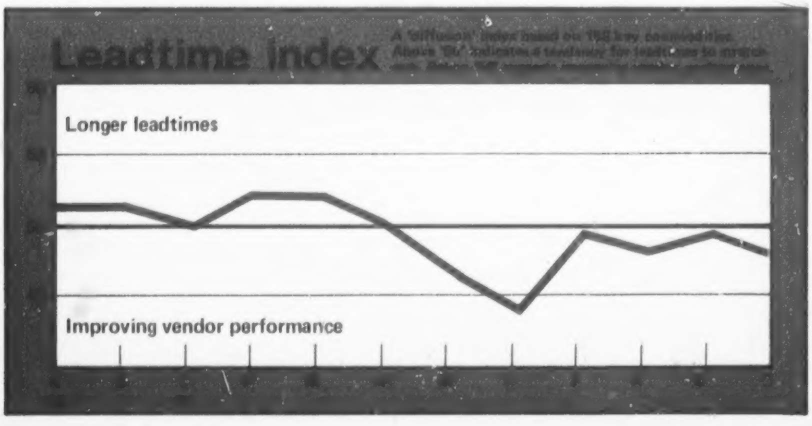
| | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 9 |
| Aluminum Plate (Chgo) | 8 | 6 | 8 |
| Aluminum Sheet (LA) | 11 | 11 | 14 |
| Aluminum Sheet (Chgo) | 8 | 8 | 9 |
| Brass Castings (LA) | 4 | 7 | 10 |
| Brass Rods (Chgo) | 2½ | 2½ | 10 |
| Brass Sheet (Chgo) | 5 | 5 | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 5 | 7½ | 8 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 7 | 9½ | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 6 | 6 | 7 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 6 | 6 | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 41 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 7 | 7 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chgo) | ½ | ½ | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 4 | 8 | 13 |
| Rubber, Synthetic (LA) | 1½ | 1½ | 2 |
| Rubber Hose (LA) | 7 | 7 | 8 |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

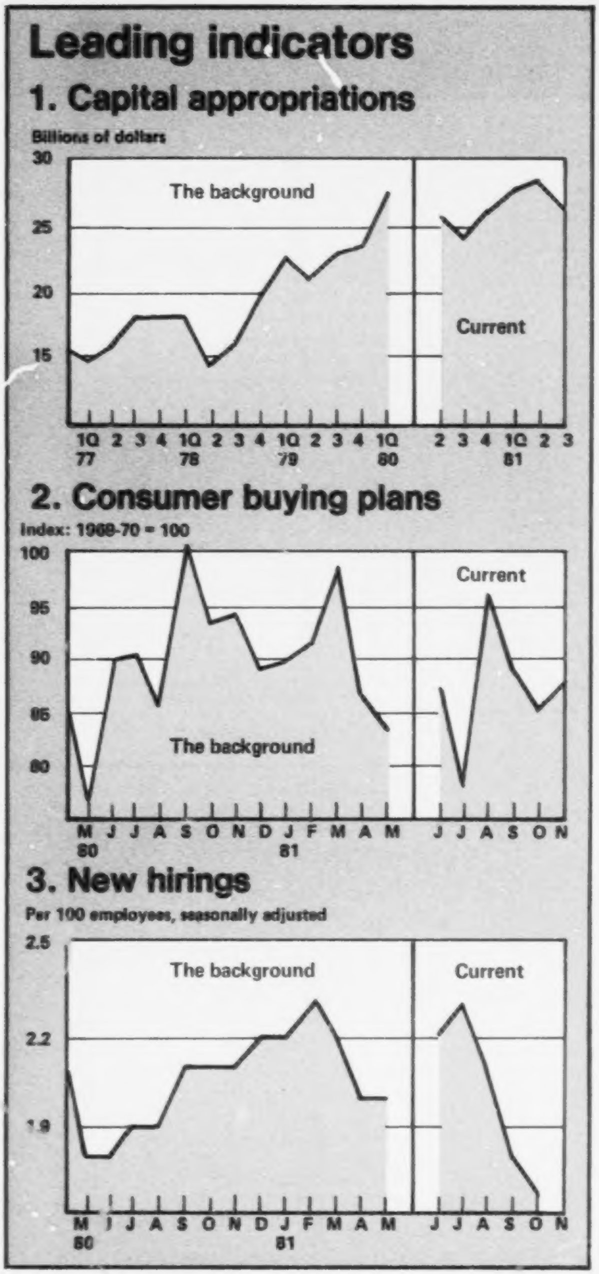


Forward commitments



Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch [illegible]


Leading indicators

1. Capital appropriations

2. Consumer buying plans

3. New hirings

**Business in brief:**

# Two ways to look at current cycle

The start of the new year is providing plenty of ammunition for both pessimists and optimists.

The former, preferring to zero in on the nearterm outlook, cite the continuing decline in composite leading indicators. They note that the NAPM Business Barometer (chart below) has dropped for three consecutive months.

To be sure, the latest figure (38) is hardly bullish—and it does clearly suggest that the current downturn has a few more months to go. But what the purveyors of gloom and doom fail to point out is that the index decline has been considerably less precipitous than in either of the past recessions (1974-75 and early 1980).

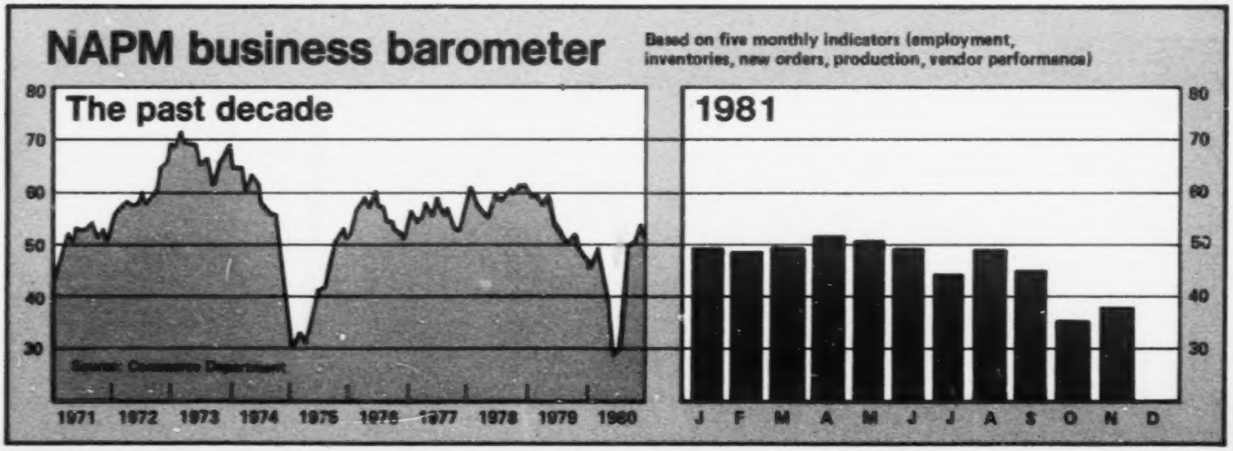
These negative thinkers also tend to ignore the growing number of signs suggesting that the downturn will be relatively short-lived. For one, interest rates have been coming down of late—a trend that is bound to eventually help the depressed auto and housing industries.

Also: Capital spending, while it won't provide any upward momentum, looks to remain rather neutral this time around. Most studies suggest an unchanged level of investment after adjusting for price increases.

The above appraisal, incidentally, is supported by new figures on capital appropriations (a lead indicator of capital spending). True, totals here have slipped a bit (top chart), but they still remain at a relatively high level. Indeed, for 1981 as a whole, they're up some 8%. A survey of 1982 expectations by The Conference Board indicates that 1982 totals could be up by another 6% or so.

Some grounds for optimism over the longer pull can also be drawn from consumer buying surveys. Again, they're down from earlier levels. But even so, they're not nearly as low as they were in early 1980 (center chart). Moreover, these figures could well begin to climb by late spring as the big, new, 10% tax reduction approaches.

On a somewhat more gloomy note, there's today's extremely low rate of new hirings (lower chart). But this has to be expected in a recessionary business climate. And here, too, there are grounds for cautious optimism—with most labor analysts looking for a slow recovery in job opportunities by April or May. ***PW***


NAPM business barometer

Based on five monthly indicators (employment, inventories, new orders, production, vendor performance)

Source: Commerce Department

# Still stable or lower prices

The recession continues to dampen the inflationary fires—with industrial price averages at latest count rising only 0.1% above the previous month—or less than 1% at annual rate.

Moreover, the deceleration is affecting an increasing number of product lines. Note from the table that some 15 of the 50 items monitored by ***PurchasingWorld*** last month have now actually turned down. And another 15 have remained unchanged.

Substantial declines have been registered over the past month in industrial chemicals, plastic resins, nonferrous metals, synthetic fibers, and most scrap materials. Indeed, the overall crude material index dropped an eye-opening 3.2% over the latest 30-day period.

Gasoline, home-heating oil, and diesel fuels also continue to edge lower. Ditto, some construction materials such as gypsum, copper wire, and plastic building items.

On the other hand, a few areas are still moving up at a relatively brisk pace. Included here are agriculture equipment, transformers, industrial pumps, metal-cutting machine tool parts, industrial rubber items, and automobiles. ***PW***

## This month's breakdown

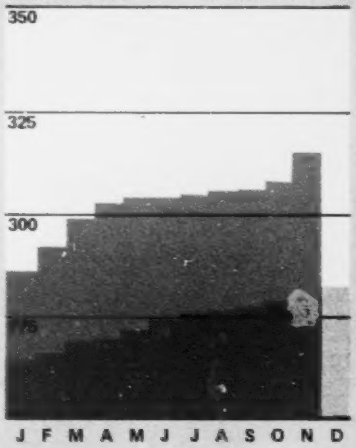
| | | Percent change from: | |
|---|---|---|---|
| | Latest level (June) | Month ago | Year ago |
| Bearings | 321.6 | 0 | 15.4 |
| Bolts, nuts, etc. | 268.1 | 0 | 8.5 |
| Chemicals, inorganic | 301.5 | –0.1 | 15.6 |
| Chemicals, organic | 397.5 | –0.4 | 7.8 |
| Concrete products | 293.2 | 0 | 5.6 |
| Cutting tools, small | 267.1 | 0.1 | 9.4 |
| Electrical instruments | 248.3 | 0.3 | 17.8 |
| Electric lamps (bulbs) | 280.2 | 0.2 | 6.3 |
| Fans and blowers | 328.8 | 0 | 6.7 |
| Fittings, industrial | 304.1 | 0 | 1.8 |
| Foundry and forge products | 336.2 | 0 | 5.6 |
| Fuel oil (residual) | 1169.5 | –0.4 | 15.0 |
| Furniture, commercial | 263.2 | 0.3 | 8.7 |
| Gasoline | 720.8 | –0.5 | 12.2 |
| Glass, flat | 218.5 | 0 | 7.6 |
| Glass containers | 334.8 | 0 | 9.3 |
| Gypsum products | 251.3 | –0.4 | –0.8 |
| Hand tools | 323.3 | 0.7 | 11.7 |
| Hand tools, power driven | 214.0 | 0 | 8.1 |
| Industrial furnaces | 338.9 | 1.8 | 10.6 |
| Integrating and measuring instruments | 205.1 | 0 | 8.6 |
| Internal combustion engines | 313.0 | 0.3 | 10.8 |
| Lubricating oil | 888.1 | 0 | 12.1 |
| Lumber millwork | 272.0 | 0.3 | 0.7 |
| Material handling equipment | 283.3 | 0.2 | 8.5 |
| Metal containers | 318.2 | –0.3 | 4.9 |
| Metal mill shapes | 306.4 | –0.8 | 3.1 |
| Metal tanks | 310.6 | –0.5 | 6.8 |
| Motors and generators | 307.8 | 0 | 11.7 |
| Motor trucks | 228.3 | 0.1 | 11.7 |
| Office and store equipment | 148.0 | –0.1 | 3.6 |
| Paperboard | 261.6 | –0.4 | 8.2 |
| Paper boxes and shipping containers | 249.2 | –0.2 | 10.2 |
| Paper office supplies | 222.4 | 0 | 10.0 |
| Paint | 254.8 | 1.5 | 5.6 |
| Plastic resins | 290.9 | –2.3 | 5.3 |
| Precision measuring tools | 227.4 | 0.5 | 7.2 |
| Pumps and compressors | 335.7 | 1.7 | 11.2 |
| Refractories | 309.8 | 0.3 | 13.4 |
| Rubber belts and belting | 309.7 | 0.9 | 14.9 |
| Scales and balances | 221.3 | 0 | –1.6 |
| Steel products | 347.2 | 0 | 12.7 |
| Switchgear | 251.0 | 0.8 | 6.0 |
| Textiles, synthetic fibers | 162.5 | –0.6 | 15.5 |
| Textiles, gray fabrics | 147.9 | 0.1 | 2.0 |
| Tires and tubes | 257.5 | –0.1 | 5.0 |
| Transformers and power regulators | 221.5 | 3.4 | 15.9 |
| Valves, industrial | 320.0 | 0.3 | 8.1 |
| Welding equipment | 267.3 | 0.2 | 7.5 |
| Wire and cable | 207.7 | –0.8 | –2.6 |

## Industrial prices at a glance

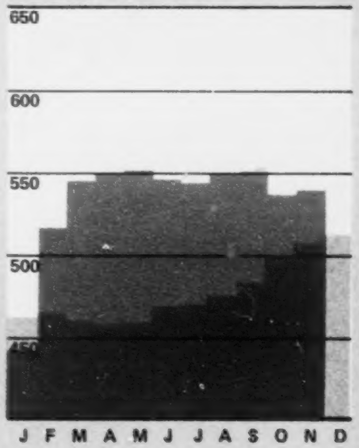
1980 ☐ 1981 ■

### All items

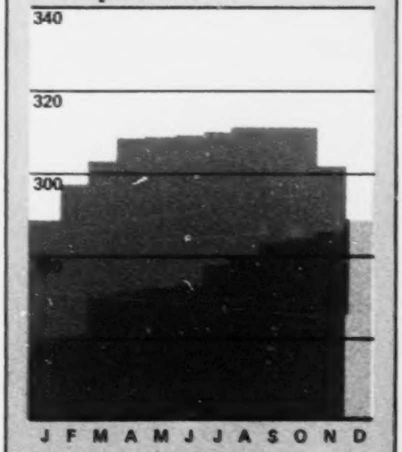
Index: 1967 = 100



### Raw materials



### Semifabs, components

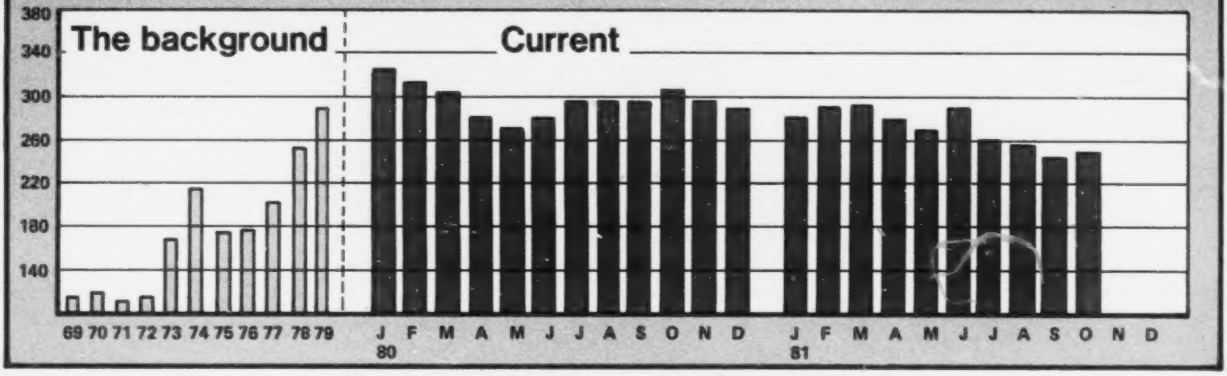


Source: Bureau of Labor Statistics

# PW raw material price barometer

Index: 1967 = 100

| | |
|---|---|
| Latest month | 250.0 |
| Month before | 252.5 |
| Year ago | 304.7 |



# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt. | 22.15 | 22.15 | 19.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 15.50 |
| Steel, bars, Pitts., cwt. | 14.35 | 14.35 | 15.50 |
| Steel, bars, C.R., Pitts., cwt. | 29.20 | 29.20 | 30.60 |
| Steel, plates, Chi., cwt. | 24.25 | 23.25 | 21.50 |
| Steel, plates, Pitts., cwt. | 24.25 | 23.25 | 21.50 |
| Steel, sheets, H.R., Pitts., cwt. | 20.80 | 20.80 | 18.45 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 21.90 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 27.00 |
| Steel, basic wire, Pitts., cwt. | 25.95 | 25.95 | 22.20 |

## Nonferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | .76 | .76 | .76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.22 | 1.23 | 1.30 |
| Brass, yellow, [sheet], lb. | 1.16 | 1.17 | 1.24 |
| Cadmium, ton lots, lb. | 1.40 | 1.60 | 2.50 |
| Copper, electrolytic, wire bars, refd., lb. | 80 | .81 | .90 |
| Cooper sheet, over 24 in., lb. | 1.31 | 1.32 | 1.39 |
| Lead, common, N.Y., lb. | .31 | .36 | .39 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 414.00 | 424.00 | 380.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.70 |
| Nickel, electrolytic, producer, lb. | 3.29 | 3.50 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 8.87 | 9.04 | 17.53 |
| Tin, Straits, N.Y., lb. | 8.08 | 7.90 | 7.48 |
| Zinc, Prime West, East St. Louis, lb. | 420 | 463 | 413 |
| Zinc, die casting alloy, NO. 3, lb. | 528 | 528 | 445 |

## Chemicals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | .435 | .440 | .375 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.48 | 1.47 | 1.80 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 17.50 | 17.50 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | .66 | .66 | .62 |
| Formaldehyde, USP, 37%, [2% to 5% meth.], tanks, lb. | .101 | .101 | .072 |
| Glycerine, synthetic, tanks, lb. | 805 | 805 | .710 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | .345 | .345 | .365 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | .715 | .715 | .710 |
| Naphthalene, crude, tanks, lb. | .220 | .220 | .205 |
| Phthalic anhydride, tanks, lb. | .420 | .420 | .375 |
| Polyethylene resin, high-pressure molding, carlots, lb. | .45 | .45 | .41 |
| Polypropylene, G-P injection molding, lb., railcar shipment | .50 | .50 | .36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | .41 | .41 | .46 |
| Rosin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Sytrene monomer, 99.6%, tanks, lb. | .375 | .375 | .340 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Suphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 77.25 |
| Titanium dioxide, anatase, reg., carlots, lb. | .69 | .69 | .57 |
| Xylene tanks, gal. | 1.48 | 1.48 | 1.43 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. 1 Grade | 45.50 | 45.50 | 44.36 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 21.00 | 21.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 300.00 | 275.00 |

## Building materials

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 315.06 | 318.11 | 340.90 |
| Lumber 2x4, pine, mbf, cl | 291.00 | 295.93 | 304.30 |
| Plywood, plyform, 3/4", msf, cl | 588.10 | 594.10 | 575.53 |
| Plywood, 5/8", msf, cl | 340.29 | 347.94 | 365.90 |
| Cement, bulk, ton, tl | 60.98 | 61.23 | 58.30 |
| Sand, ton, cl | 5.99 | 6.02 | 6.02 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.10 | 45.10 | 42.80 |
| Crushed stone, 1½", ton, cl | 7.61 | 7.61 | 7.43 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.69 | 0.69 | 0.66 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 153.43 | 146.17 | 147.42 |
| Brick, common, per thousand, tl | 166.40 | 164.30 | 153.80 |
| Asphalt paving, AC-20 | 167.45 | 168.10 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot cl | 6.69 | 6.69 | 6.23 |

## Textiles

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | .229 | .244 | .280 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.01 | 1.01 | 1.05 |
| Cotton middling, 1", N.Y., lb. | .549 | .600 | .904 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | .780 | .780 | .710 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.67 |
| Blended printcloth, 64", 78x54, yd. | .76 | .76 | .77 |
| 20s combed yarns | 1.88 | 1.85 | 1.82 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

## Hides and rubber

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | .59 | .56 | .65 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 485 | 458 | .735 |

## Fuels

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 24.25 | 24.25 | 24.25 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 33.75 | 32.77 | 35.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 1.010 | 1.025 | .884 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 1.003 | 1.008 | .915 |
| Heating oil, No. 2, Chi., bulk, gal. | .980 | .968 | .837 |
| Heating oil, No. 2, N.Y., bulk, bbl. | 100.60 | 99.80 | 40.07 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 25.75 | 24.00 | 24.00 |
| Jet kero, Gulf, spot, gal. | .98 | .98 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | .44 | .44 | .42 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

C 8650-2 A

# PurchasingWorld®

1902 14 2906451 11 W16 1
COPY ONE
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Price discounting** is widespread and likely to continue into summer, a survey of purchasing managers shows (p. 8).

**Lead demand** will remain low throughout 1982 and beyond, and excess capacity will continue (p. 10).

**Leadtimes** remained stable for another month with few items in short supply (p. 104).

## Corporate strategy elevates purchasing

—page 30

Patrick Stokes, corporate vice president and group executive at Anheuser-Busch, heads not only the corporate materials acquisition division, but also three corporate profit centers. His fast track to top management (at age 40) demonstrates the critical role of raw materials planning and control in a growth company.

Is there a measure of
urchasing productivity?
page 46

**PurchasingWorld®** Vol. 26, No. 2 - February 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
Richard L. Dunn

Executive Editor
Robert S. Reichard†

Managing Editor
Paul V. Farrell†

Technical Editor
John Fitts

Management Editor
Lea Tonkin

Production Editor
Teri Preston

Art Director
Richard Trefilek

**Consulting Editors**

Economics and Government
Dr. Louis J. Paradiso

Purchasing and the Law
Dr. John E. Murray, Jr.

Value Analysis
Lawrence D. Miles

Materials Management
Ernest C. Huge

Negotiating
Louis DeRose

Transportation
Dr. Leon Wm. Morse

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **PMs say they're 'in the driver's seat' on prices.** Today's all-out buyer's market is making for more than the usual number of discounts and other price concessions.

30 **Purchasing at Anheuser-Busch: way up the corporate ladder.** Anyone with doubts about purchasing's position in the corporate hierarchy would do well to take a look at the key role purchasing plays in corporate strategy at Anheuser-Busch.

*41 **Expanding capacity means good news for paper buyers.** Paper and paperboard capacity should be more than adequate to meet 1982 needs—and there should be enough to go around for 1983, too.

*42 **From purchasing executive to president: taking advantage of the broad perspective.** Getting overall exposure to corporate operations is good training for purchasing people.

45 **Strong growth, heavy competition expected for semiconductors.** Sharp gains are anticipated in semiconductor markets over the next few years.

46 **Is there a measure of purchasing productivity?** More than conventional yardsticks are needed to properly evaluate purchasing proficiency in today's new economic environment.

50 **Executive opinion: Think of inbound transportation as distribution in reverse.** Just as any distribution manager would consider all forms and costs of transportion, so should the purchasing manager.

55 **Making your presentations more productive.** Here are some tips on effectively communicating your ideas to others.

91 **Industry workhorse: the AC three-phase induction motor.** There are an estimated 100 million electric motors at work in the United States—the most common of which is the three-phase induction motor.

*Regional issues only

## Around the purchasing world

10 **PW Predicts**
15 ***PurchasingWorld* Perspective**
18 **Washington Perspective**
21 **Purchasing and the Law**
22 **Effective Negotiating**
26 **Principles of Value Analysis**
29 **Materials Management Close-up**
34 **International Perspective**
60 **Product Briefs**
80 **Product Information**
86 **SSCI Survey of Business Conditions**
92 **Labor Perspective**
94 **NAPM Perspective**
96 **Pro-D/Management Briefs**
99 **Transportation Briefing**
101 **Industrial Prices at a Glance**
102 **Latest Scrap Quotations**
104 **Procurement Status Report**
106 **Price Perspective**
108 **Business in Brief**
110 **Raw Materials Price Barometer**

ABP
BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £89 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010.

©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, A Company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659.

◄Circle 103 on card

# PMs say they're 'in the driver's seat' on prices

Today's all-out buyer's market is making for more than the usual number of discounts and other price concessions.

So say the majority of purchasing executives responding to a new ***PurchasingWorld*** survey. Equally significant, these same PMs expect the current easiness to persist through the rest of the winter and into spring. Indeed, a fair number see the weakness even spilling over into fall.

What does it all add up to? Survey findings provide one answer, suggesting that average market transaction prices ran about 5% under official lists, with a few respondents putting the gap at close to 10%. Implication: Industrial price inflation may be decelerating at an even faster clip than suggested by such broad-gauge indicators as the producer price index, which in most cases is heavily weighted by list quotes.

Other key findings of the survey:

- The efficacy of recent price increases: Nearly two out of every three respondents report some erosion over the past month or two—with the reductions coming in the form of outright recisions, temporary postponements, or watered-down advances. In many instances, all these approaches are reported by buyers (see chart).
- Areas where prices are not holding up: The list here is quite impressive and includes such key products as packaging, most metals, stampings, plastic resins, assorted organic chemicals, electronic components, paper, component parts, and even some machinery lines.
- Factors behind the easiness: Three reasons are generally noted for the current weakness. These include (1) excess supplies and/ or low supplier operating rates, (2) stepped-up foreign competition engendered by slow overseas domestic demand and a strong U.S. dollar, and (3) the current demand lull which has knocked some 7% off the overall industrial production index since last summer.
- Types of concessions: Not one, but a combination of approaches is reported. Chief among them are outright discounts, freight absorption, and better terms of sale. Other approaches motivated by respondents include the providing of additional services and the delivery of high-quality merchandise at prices quoted for lower-grade material.

Some supplies have even used techniques usually reserved for big-ticket consumer items. Thus, one buyer reports getting sizeable rebates on some types of machine tool purchases.

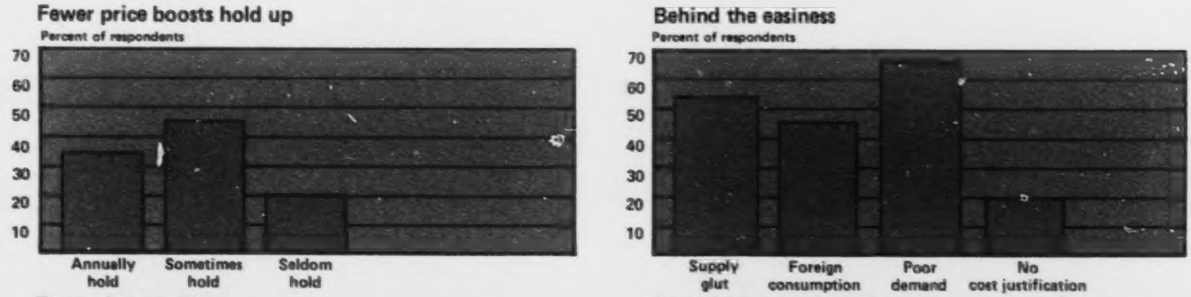
In other cases, some vendors are throwing in extras. Buyers of 1982 autos, for example, have recently received such additional items as free stereos, factory trim, and tilting wheels.

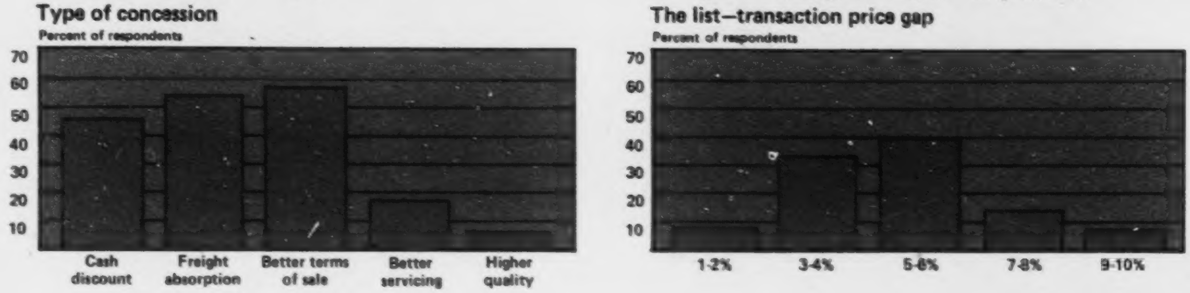
Less blatant—though probably even more important as far as overall costs are concerned—are the better longterm deals being offered. Included here are longer firm-price periods (sometimes ranging up to a year in cases where supplier costs look to remain relatively stable) and exemption of part of the base price from future price escalation. On the latter score, several say they have been able to limit such escalation to only 80% of the base price.

Plastic resins are the one area singled out as being particularly easy these days. Discounts here are all over the lot, and in some cases, they have resulted in transaction prices that range as much as 20-25% under official lists.

As one buyer sums it up, "It's a market where bargaining savvy and market clout can pay off. And while we don't expect it to last forever, we are confident that, with all of today's concessions, we can hold our overall cost increase this year 5-7%—a heck of a lot better performance than in 1980 and 1981." ***PW***

## Anatomy of a buyers' market





# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Semiconductor price fights ahead

Buyers of most semiconductors can look forward to at least another few months of strong competition and price infighting.

To be sure, the Semiconductor Industry Association is still calling for a big 17% recovery in dollar terms over the new year. But most industry observers say this is far too optimistic. Indeed, one forecaster actually sees another small decline ahead.

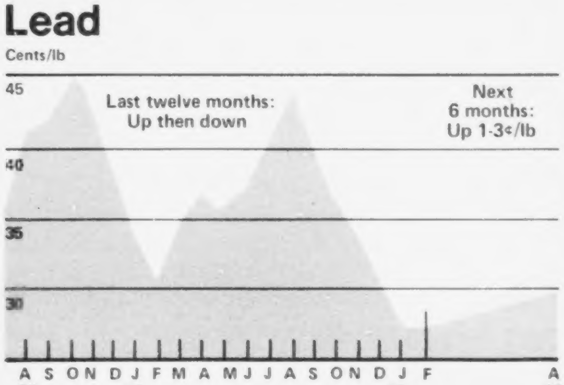
Another factor to consider: Even if 1982 does manage to end up in the plus column, most of the gain won't occur until sometime in the second half of the year. Moreover, any gain also has to be weighed against last year's estimated 7% decline.

Another factor bugging some producers is the dominance of the Japanese in the big MOS market. This has forced prices in the 16K RAM area to drop below the breakeven point. And tags on the newer 64K RAMs seem to be heading in the same direction.

On the other hand, some semi-conductor products continue to fare quite well—particularly those used as components in personal computers, small business systems, and video games. Microprocessors have also managed to buck the general down-trend—though some producers in this latter area now openly admit that the price competition has been fairly keen in recent months.

## Lead price scene

**CURRENT SITUATION: The heavy metal has failed to edge up from recent lows—with precious few signs of any meaningful nearterm recovery.** Other indications of continuing easiness would have to include (1) still-rising producer inventories, (2) hand-to-mouth buying on the part of battery makers and other users, (3) under-list export sales, and (4) sporadic producer discounting. **Especially attractive credit offerings are also reported**—with one seller recently giving 120-day payment terms and charging only 7-8% for any late payments.



**DEMAND: Earlier predictions for a 3% increase in 1982 world consumption now seem overly optimistic.** This is certainly true of the U.S. where a no-growth economy isn't likely to require any more metal than it did last year. Another nearterm depressant: expectations that 1982 batteries will use 3 lb less lead than they did last year. **Longterm growth prospects are only so-so, too—with annual increases put at only 2-3%** as a continuing lead-in-gasoline phaseout effects increased demand from diesel and electric vehicles.

**SUPPLY: High inventory levels and excess capacity tell the story.** On the latter front, secondary reducer potential is put at near 1.2 million tons per year—far above secondary demand which currently runs at only 700,000-800,000 tons. A spot check of these producers confirms the excess—with operating rates here running in the low 50-75% range. Add in 600,000 tons of primary output, and **it adds up to a no-sweat situation—for this year and probably well into the mid-1980s as well.**

**PRICE OUTLOOK: Any sustained nearterm upturn seems highly unlikely**—even if a colder-than-normal February and March provide a fillip for battery makers. But by the third or fourth quarter, some modest recovery may be in the offing—reflecting slowly improving demand and accelerating cost pressures. **Even so, yearend quotes won't be much, if anything, above 35-37¢/lb—still far under the 44¢/lb quote of last summer.**

## Steel

Discounting is still the order of the day as demand continues to sag and operating rates remain well under the 70% level. Imports, which ran over 19 million tons last year, aren't helping matters either. Nor is any sharp decline in incoming shipments likely this year—despite recent Administration moves. But domestic shipments should gradually improve from the current quarter's estimated 20-million-ton level and average out at near 90 million tons for the year as a whole. This, in turn, suggests some fair-sized price hikes later on as mills move to pass along still-rising raw material and labor costs.

## Office copiers

Competition, primarily from Japan, is taking its toll in the middle-range ($10,000 plus) market. Xerox has already cut tags on some older models by 25%. The introduction of newer technology, however, may also be playing a role here. Moreover, industry observers feel some of these models may be reduced even further later on in the year. The big copier manufacturer meantime, has lifted rental rates on all lines of its copiers and duplicators in a apparent effort to encourage outright sales.

## Aluminum

Still no sign of a pickup in this key nonferrous area, as spot ingot remains a hefty 25¢/lb under official producer lists. And there is still plenty of discounting in semifabricated lines. Other signs of the times: (1) sagging orders, (2) dumping on the LME by Continental producers, and (3) sales of remelt ingot by at least one producer at only 60¢/lb. True, U.S. producers are beginning to move on the production front, cutting operating rates down to near 75%. But this has to be weighed against still-rising stocks—with Free World primary inventories 50% above year-earlier levels.

## Construction costs

Count on increases averaging out at near 10-11% over the current year—a bit more than the relatively modest 8% advance of 1981. Here's a more detailed rundown on projected increases based on recent DRI projections: concrete products—8.2%, asphalt roofing—3.8%, structural metal products—7.3%, valves and fittings—12.3%, construction machinery—8.8%, gas compressors—9.5%, aluminum plate—6.6%, flat glass—6-7%, bituminous paving—8-9%, and sand, stone, and gravel—7-8%.

## Copper

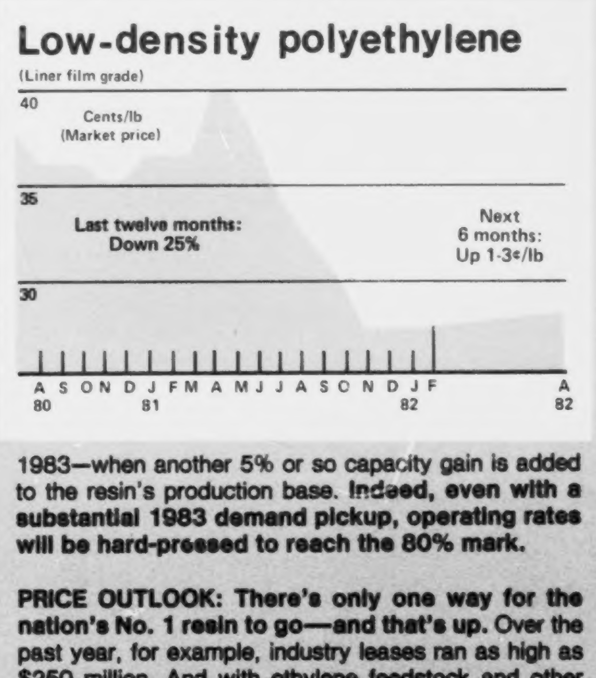
The bears continue to call the signals despite new production cutbacks and the crisis in Poland. In any event, earlier talk of 90¢/lb nearterm metal has all but disappeared. The general concensus is that current sluggishness will spill over into spring and that any subsequent recovery will be gradual—holding 1982 producer price averages

# LDPE price scene

**CURRENT SITUATION: Producers are making a concerted effort to put some order into the heretofore chaotic market.** New increases, for example, have been announced which bring the bellwether liner grade to 32¢/lb—up 4¢/lb from previously prevailing levels. But with the market still generally soft, it's not certain how much of the new boost will stick—particularly in view of all the new linear low-density polyethylene (LLDPE) coming on stream and the current high level of producer inventories.

**DEMAND: The past year was a disappointment—with shipments hitting only 7.6 billion lb (just 2% or so above 1980).** Nor is the industry likely to top that level by very much in 1982—not with the economy bogged down in another recession. **But the longer-term outlook looks a lot brighter—with producers talking in terms of 5-6% annual gains.** Such estimates, however, may be on the optimistic side as LLDPE, which permits substantial downgauging in the film applications, takes an increasing market share. Exports could slump, too, after 1985 as big new low-cost plants come on stream overseas.

**SUPPLY: Operating rates points up the extent of the current glut.** Last year, domestic plants operated at only 76-77% of their potential. And even if you factor in a small 1982 sales gain, an even lower rate is seen for the current year as producers add as much as 10% to overall capacity. The story is much the same for 1983—when another 5% or so capacity gain is added to the resin's production base. **Indeed, even with a substantial 1983 demand pickup, operating rates will be hard-pressed to reach the 80% mark.**



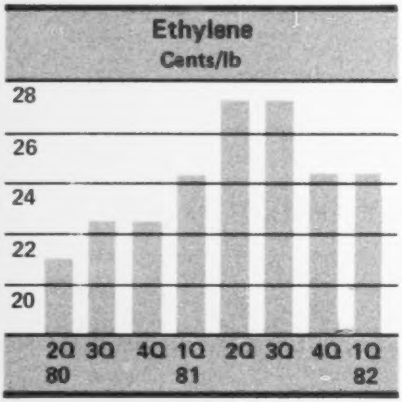
**PRICE OUTLOOK: There's only one way for the nation's No. 1 resin to go—and that's up.** Over the past year, for example, industry leases ran as high as $250 million. And with ethylene feedstock and other costs expected to rise, something has to give. **But nearterm advances will be quite modest as competitive infighting continues.** Best bet: An average tag of 37¢/lb—above curent levels but still under the 40¢/lb level prevailing as late as last May.

# Predicts...

in the low 85-90¢/lb range. Certainly, there is nothing on the demand horizon to suggest any major spurt. Thus, domestic consumption will be off about 1-2% this year—over and above last year's 4% decline.

## Ethylene

A continuing glut will keep prices mired in the low 23½-25½¢/lb range over the next few months. But look for a gradual recovery after that—with quotes rising to near 28-29¢/lb by the fourth quarter as costs rise and producers continue to curtail production excesses. But demand will remain relatively sluggish, hitting only about 28-29 billion lb for the year as a whole—suggesting only about a 70% overall operating rate. But the latter should start moving up in 1983 to near 75% on a combination of rising demand and relatively small capacity additions.



## Nickel

The recently lowered $3.20/lb producer price still has to be regarded as shaky. At any rate, the new quote has yet to receive a fair test. Reason: the substantial forward selling late last year at prices below $3/lb. The current sluggish order pattern isn't calculated to help matters either. But don't rule out a modest hedging fillip by spring and early summer when major Canadian contracts start coming up for renegotiation.

## Fasteners

Nearterm price increases may be a bit harder to come by now that Washington has turned thumbs down on continuing the special duty (averaging out at near 15%) imposed back in 1979. Duties have reverted to the previously prevailing 0.2-2.5% levels. This, in turn, suggests increasing competition from such countries as Japan, Taiwan, India, and Western Europe. In any case, the industry will be hard put to equal the 8-9% increase racked up over the past 12 months.

## Scrap steel

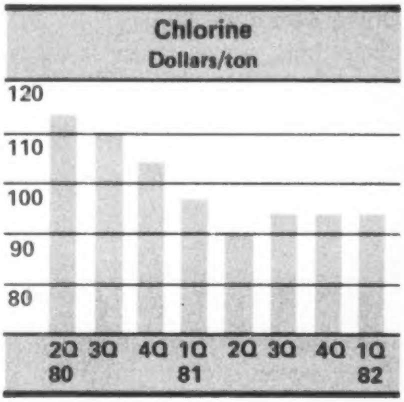
Prices have perked up in recent weeks. But it would be unrealistic to anticipate any major upsurge—now with the less-than-sensational steel mill trend projected for the current year. Poor export demand (outgoing shipments were off 40% in 1981) aren't helping matters either. Best bet: a continued slow price upcreep from the low composite quote of $75/ton hit back in December. But there is little indication of any quick bounceback to the near $100/ton composite that prevailed as recently as early 1981.

## Sulphur

Recent stability (prices have held steady since October) may not last much longer—despite better market balance over the past few months. Reason: possible Polish interruptions. That troubled country exported 3 million tons (half to the Free World) over the first nine months of last year, and any prolonged cutoff would make for renewed tightness. One saving grace: Demand has been sluggish recently because of the world economic downturn and poor demand for phosphorous fertilizers. As such, any price boost, if indeed it comes, is likely to be in the modest $5-10/ton range.

## Chlor-alkalis

A recent $10/ton hike in chlorine has failed to hold, as downstream derivatives continue to lag expectations. But look for another price-boosting attempt here (from the currently depressed $95/ton level) by sometime this spring. Increases here will be modest—with average 1982 tags put at only near $100-105/ton. On the other hand, caustic soda, bolstered by production cutbacks in byproduct chlorine, remains buoyant—with a recent $25/ton boost holding firm.



## Zinc

Sagging construction and auto demand tell the story here. Adding to the metal's woes in the auto sector is the continuing falloff in per-car consumption—with the average 1982 vehicle containing only 22.7 lb of die castings (down almost 1½ lb from last year and less than half the 50-lb figure of the mid-1970s). Also worth noting: the sporadic discounting and extended credit offered by some producers. Two bright spots, however, are the zinc penny, which is chewing up 40-50,000 tons per year, and the increasing use of Galvalume, a product containing 43% zinc. ***PW***

# Strong growth, heavy competition expected for semiconductors

Don't be fooled by this year's lull in semiconductor markets. The slowdown will be temporary—with sharp gains anticipated over the next few years.

Expected advances should be enough to push overall U.S. shipments up over the $20-billion level by 1986—more than double this year's estimated $9.8-billion total.

That's the rosy projection now being made by Frost & Sullivan, a well-known market research firm. F & S assumes that the domestic industry will be able to hold its own against not only Japanese inroads but also the Europeans, who are now receiving hundreds of millions of dollars in aid from government sources.

One bright spot for buyers: This overseas competition, along with the usual domestic infighting, is expected to keep tags under pressure. And declines are likely as newly developed products move into volume production.

Much of the report's upbeat outlook is based on continuing expectations of a demand explosion—particularly in the general family of products classified as integrated circuits (ICs). U.S. sales in this sector over the next five years are targeted for an eye-opening 129% gain—the equivalent of about an 18% annual rate of advance.

Gains in the other major semiconductor area (discrete circuits) will be much more moderate over the 1981-86 period. Best bet here: a five-year increase of about 35%—or 6% annual rate.

■ **ICs based on MOS technology:** Shipments here should reach the $11 billion mark in 1986—thus accounting for over half of all semiconductor sales at that time. This remarkable growth will be due to the proliferation of (1) standard circuits such as microprocessors and memories into a very wide range of applications and (2) circuits which are designed for specific applications such as automotive and telecommunications.

Also worth noting: The mix of MOS ICs overall will likely change during the 1980s. While most of the devices are currently based on standard N-channel processing, it is expected that the growing percentage will be designed with the low-power CMOS technique or the new so-called HMOS, which is the name for the high-performance-scaled NMOS technology.

■ **Bipolar digital circuits:** Significant gains are projected here, too. Specifically, shipments from U.S. suppliers to the worldwide markets will jump from an estimated $1.83 billion in 1980 to close to $4.5 billion by 1986. More than half of the total bipolar digital sales will be from circuits based on Schottky TTL technology.

Memories, both RAMs and ROMs will also be a significant portion of the total bipolar digital business.

■ **Analogs:** Sometimes referred to as linear integrated circuits, these are the smallest of the three IC categories. Total sales volume from U.S. producers is expected to just about double to $1.95 billion by 1986, up from approximately $935 million in 1979 and an estimated $1.22 billion in 1981.

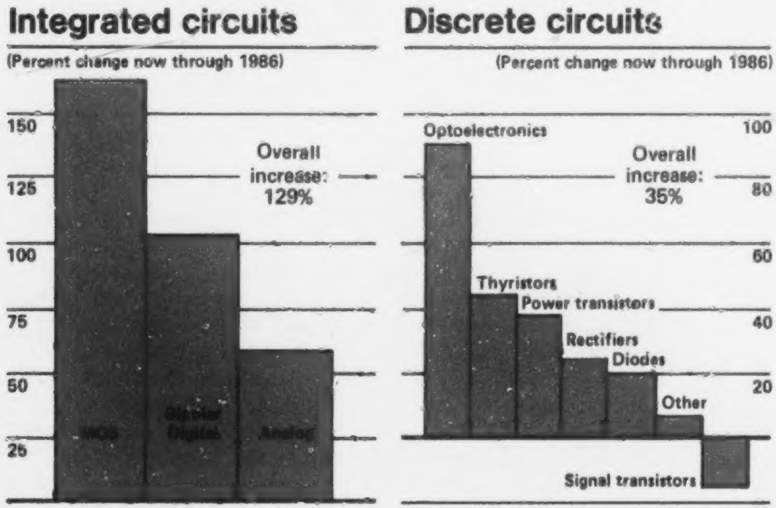
Also falling into the analog circuit category are newer circuits such as the first generation of standard telecommunications devices, notably codecs (coder-decoders) and filters. These two devices are being integrated into a single-chip and will likely be widely used by the telecommunications equipment industry during the 1980s.

■ **Discrete semiconductors:** Despite the proliferation of ICs and the continuous improvements in monolithic circuit art, the discrete semiconductor business continues to grow—though (as pointed out earlier) at a much more moderate rate than ICs.

Optoelectronic devices are clearly the greatest growth segment here. Unlike most semiconductor devices that are silicon based, optoelectronic devices are based on materials such as gallium arsenide or gallium-aluminum-arsenide.

There are also several other segments of the discrete semiconductor business with attractive growth potential during the 1980s. Among them are discrete power transistors—very high-current-type devices—as well as high-voltage transistors. The power transistor business is forecast to be approximately $630 million by 1986, up from $415 million in 1970.

One overall F&S conclusion: Look for semiconductor firms to team up with key systems houses, because without the unique knowledge of the requirements of markets such as telecommunications and automotive, semiconductor outfits may not be able to take advantage of all these new opportunities. ***PW***



**Semiconductors: More solid growth**

Source: Frost & Sullivan

# Encouraging signs for service centers

Steel inventories seem to be resisting further declines (see top chart) despite the avowed goals of both purchasing managers and service centers.

The problem is that, while incoming receipts are falling on both levels, so is demand. Result: Days' supply is either holding steady (in the case of distributors) or actually rising a bit (in the case of industrial buyers).

But the determination for further paring is still quite evident. The latest Steel Service Center Institute (SSCI) survey, for example, finds that 48% are planning on steel stock reductions over the next three months—in marked contrast to the miniscule 2% who say they'll be adding.

And the picture is much the same on the steel buyers' front. Specifically, 36% are projecting inventory decreases over the next six months—again far outweighing the small 3% who contemplate increases.

But while inventories may be heading lower, there are now some mildly optimistic signs shaping up in the demand sector. Some 37% of queried steel buyers, for example, see their firms' backlogs increasing over the next three months. While still under the 43% who anticipate declines, the 37% "increase" figure is the highest in nearly two years.

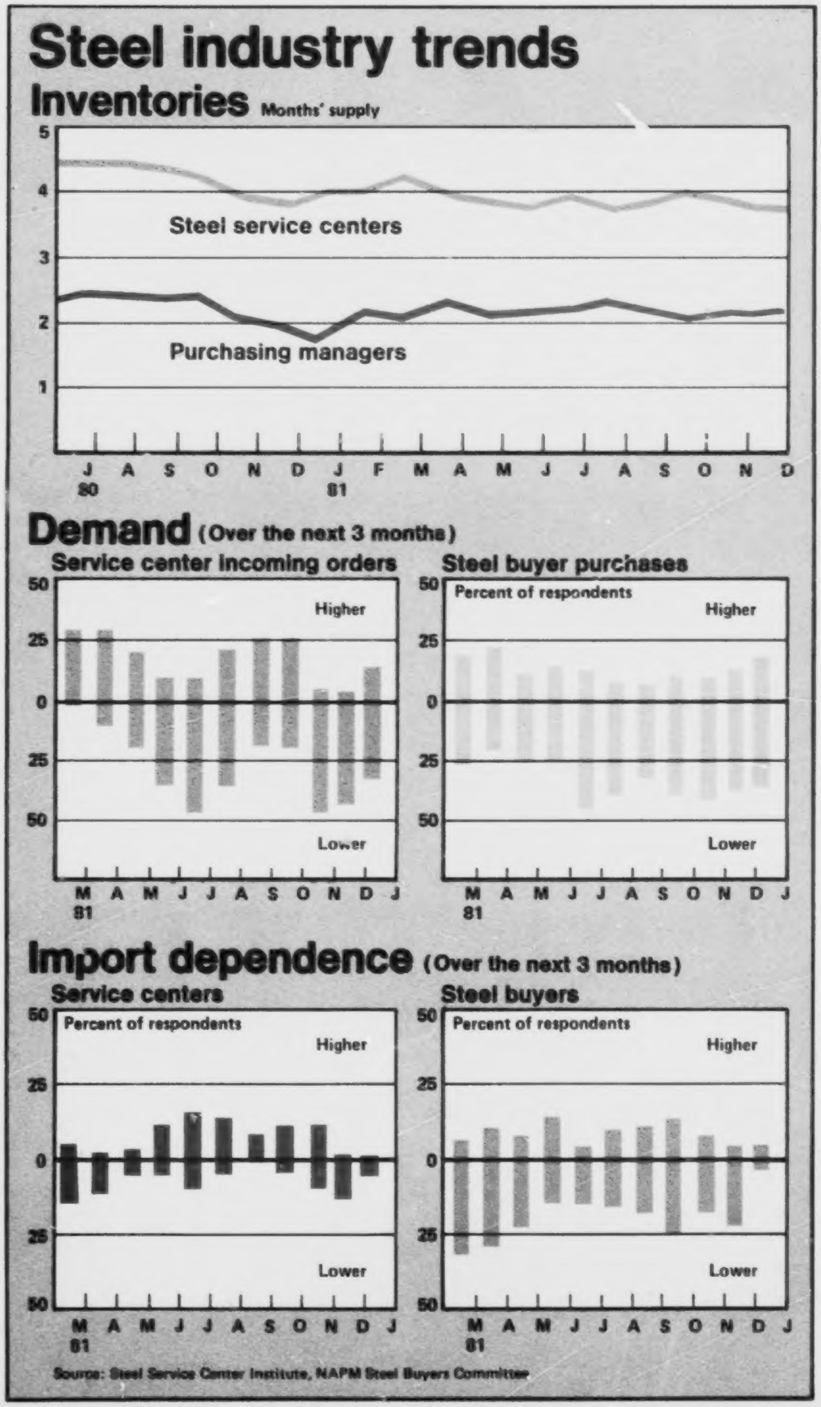
Expectations of demand improvement can also be gleaned from the latest SSCI data. Some 14% now see an increase in orders over the next three months—double the number of the previous 30-day period.

Distributors also remain cautiously optimistic about 1982 as a whole. As Andrew O. Sharkey, president of the SSCI puts it, "Customers steel inventories are low, and once the economy begins to turn around, recovery should be rapid."

Talks with service center executives also indicate an upbeat trend. Current estimates for 1982 as a whole call for about an average 4% tonnage increase on top of last year's strong 8% gain. Reason for this optimism: the belief that PMs will continue to opt for small, service center purchase rather than risk another inventory buildup by ordering large, mill-size lots.

Imports, meantime, look to play a continuing role in overall steel procurement. Some 11% of responding service centers, for example, report that carbon steel is coming in 10-20% under comparable domestic levels. And in stainless, that type of price break is noted by an even larger 20% of respondents.

Steel buyers also indicate overseas bargains. The 16% who say foreign steel is now "substantially below" comparable domestic levels is the largest such figure in years. Add the 69% who report more modest price breaks, and it suggests that lower-than-U.S. quotes are now being experienced by an overwhelming 85% of all steel-buying PMs. ***PW***



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

# Price increases minimal

The good news continues—with industrial producer price averages still moving up at a surprisingly slow pace.

Indeed, since late 1981, the average rate of increase has come to less than one-half percent a month. That's less than 6% at annual rate—a refreshing change from all the double-digit advances of only a year ago.

And even the small current increases may be a bit exaggerated. Reason: Uncle Sam's index is heavily weighted with list prices and, hence, does not always pick up all the discounting and unofficial shading that has been going on in recent months.

The best performance (at least from the buyers' viewpoint) has been in the raw materials area—in the chemical, plastics, metal, and paper sectors.

Then, too, energy quotes continue on a fairly even keel, with natural gas the only type showing double-digit advances—although electricity rates are also still moving up at a brisk pace.

From a price standpoint, the number of declines shown in the table below is an encouraging sign. There haven't been so many minus figures since the recession of 1974-75. ***PW***

## This month's breakdown

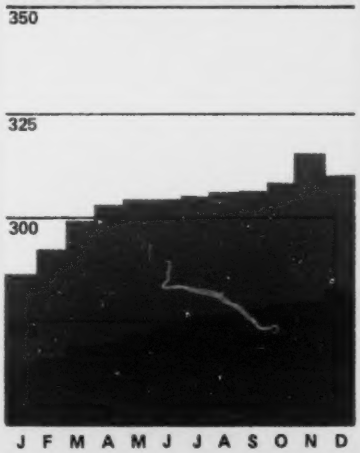
| | | Percent change from: | |
|---|---|---|---|
| | Latest level (Nov.) | Month ago | Year ago |
| **Bearings** | 321.6 | 0 | 15.4 |
| **Bolts, nuts, etc.** | 268.1 | 0 | 8.5 |
| **Chemicals, inorganic** | 301.5 | –0.1 | 15.6 |
| **Chemicals, organic** | 397.5 | –0.4 | 7.8 |
| **Concrete products** | 293.2 | 0 | 5.6 |
| **Cutting tools, small** | 267.1 | 0.1 | 9.4 |
| **Electrical instruments** | 248.3 | 0.3 | 17.8 |
| **Electric lamps (bulbs)** | 280.2 | 0.2 | 6.3 |
| **Fans and blowers** | 328.8 | 0 | 6.7 |
| **Fittings, industrial** | 304.1 | 0 | 1.8 |
| **Foundry and forge products** | 336.2 | 0 | 5.6 |
| **Fuel oil (residual)** | 1169.5 | –0.4 | 15.0 |
| **Furniture, commercial** | 263.2 | 0.3 | 8.7 |
| **Gasoline** | 720.8 | –0.5 | 12.2 |
| **Glass, flat** | 218.5 | 0 | 7.6 |
| **Glass containers** | 334.8 | 0 | 9.3 |
| **Gypsum products** | 251.3 | –0.4 | –0.8 |
| **Hand tools** | 323.3 | 0.7 | 11.7 |
| **Hand tools, power driven** | 214.0 | 0 | 8.1 |
| **Industrial furnaces** | 338.9 | 1.8 | 10.6 |
| **Integrating and measuring instruments** | 205.1 | 0 | 8.6 |
| **Internal combustion engines** | 313.0 | 0.3 | 10.8 |
| **Lubricating oil** | 888.1 | 0 | 12.1 |
| **Lumber millwork** | 272.0 | 0.3 | 0.7 |
| **Material handling equipment** | 283.3 | 0.2 | 8.5 |
| **Metal containers** | 318.2 | –0.3 | 4.9 |
| **Metal mill shapes** | 306.4 | –0.8 | 3.1 |
| **Metal tanks** | 310.6 | –0.5 | 6.8 |
| **Motors and generators** | 307.8 | 0 | 11.7 |
| **Motor trucks** | 228.3 | 0.1 | 11.7 |
| **Office and store equipment** | 148.0 | –0.1 | 3.6 |
| **Paperboard** | 261.6 | –0.4 | 8.2 |
| **Paper boxes and shipping containers** | 249.2 | –0.2 | 10.2 |
| **Paper office supplies** | 222.4 | 0 | 10.0 |
| **Paint** | 254.8 | 1.5 | 5.6 |
| **Plastic resins** | 290.9 | –2.3 | 5.3 |
| **Precision measuring tools** | 227.4 | 0.5 | 7.2 |
| **Pumps and compressors** | 335.7 | 1.7 | 11.2 |
| **Refractories** | 309.8 | 0.3 | 13.4 |
| **Rubber belts and belting** | 309.7 | 0.9 | 14.9 |
| **Scales and balances** | 221.3 | 0 | –1.6 |
| **Steel products** | 347.2 | 0 | 12.7 |
| **Switchgear** | 251.0 | 0.8 | 6.0 |
| **Textiles, synthetic fibers** | 162.5 | –0.6 | 15.5 |
| **Textiles, gray fabrics** | 147.9 | 0.1 | 2.0 |
| **Tires and tubes** | 257.5 | –0.1 | 5.0 |
| **Transformers and power regulators** | 221.5 | 3.4 | 15.9 |
| **Valves, industrial** | 320.0 | 0.3 | 8.1 |
| **Welding equipment** | 267.3 | 0.2 | 7.5 |
| **Wire and cable** | 207.7 | –0.8 | –2.6 |

## Industrial prices at a glance

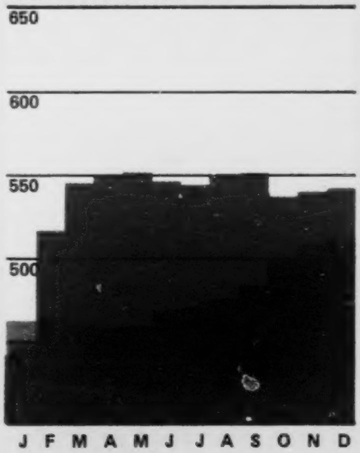
1980 ▨ 1981 ■

### All items

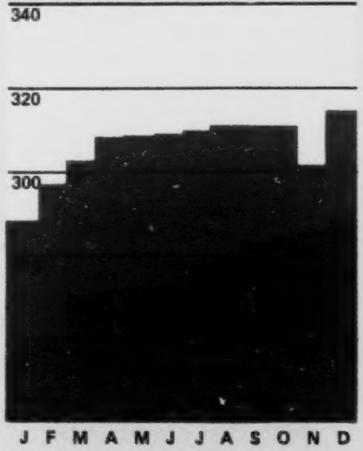
Index: 1967 = 100



### Raw materials



### Semifabs, components



Source: Bureau of Labor Statistics

## Latest scrap quotations

| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 93.00 | 81.00 | 103.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 82.00 | 73.00 | 94.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.65 | 0.65 | 0.82 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.585 | 0.600 | 0.690 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.61 | 0.61 | 0.78 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.35 | 0.35 | 0.39 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.255 | 0.260 | 0.375 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.275 | 0.285 | 0.405 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.15 | 0.15 | 0.14 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.18 | 0.17 | 0.24 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.65 | 0.65 | 0.65 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.60 | 0.60 | 0.60 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 10.00 | 10.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 7.00 | 7.00 | 13.00 |
| Polyethylene, clear, dlr., N.Y., lb | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene (granular), natural, dlr., f.o.b. N.Y., lb. | 0.18-0.20 | 0.18-0.20 | 0.20-0.30 |
| Vinyl, clear, dlr., f.o.b. N.Y., lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| Cellulose acetate (granular), clear, dlr., f.o.b. N.Y., lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.09 | 0.10 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.16 | 0.18 | 0.38 |

# R & D spending to rise in 1982

Research and development outlays are heading up—despite the current recessionary climate.

At least that's the finding of Battelle Columbus Laboratories. The prestigious think-tank now sees R & D spending rising to $77.6 billion—up 12.4% over estimated 1981 levels.

That leaves room for a "real" advance of a few percentage points since the R & D inflation will be slowing down a bit (to only an 8.7% rate). In any event, Battelle notes that the projected 3.7% real increase will be slightly higher than the 3.4% annual advance of the past eight years.

Other key findings of the just-released report:

- Funding: Money will come mostly from industry (48.6% of total outlays) and Uncle Sam (47.7%). Universities will contribute 2.2%, with other nonprofit institutions making up 1.5%.
- Performance: Industry will do the lion's share of the work (70.8%)—with the remainder split among the federal government (13.0%), universities (12.5%), and other nonprofit institutions (3.6%).
- Industry-by-industry performance: The biggest sums will be earmarked for space ($12.2 billion)—followed by electrical machinery and communications ($11.0 billion), machinery ($7.6 billion), automative ($6.5 billion), and chemicals ($5.7 billion). ***PW***

# Higher inventory ratios likely

Inventory/sales ratios have begun to climb again. But nobody seems about to push the panic button.

Reason: Purchasing managers and other executives are keeping a tight rein on any new additions. Indeed, on the buyers level, the physical volume of holdings has actually edged a bit lower in recent months.

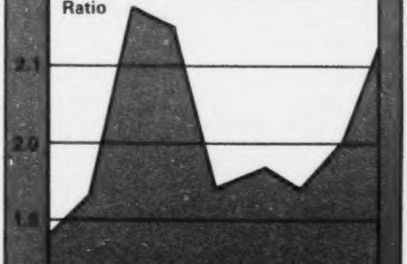
They why the rise? It can all be traced to a rather precipitous drop in sales (the denominator of this key measure of days' supply).

But even with declining sales, the ratio doesn't look all that bad—with the latest reading well under the peaks of a year and a half ago (see chart).

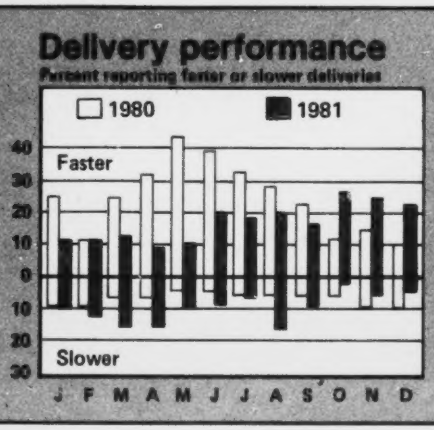
On the inventory front, for example, there are now three potent forces operating to keep overall holdings under control. These include (1) today's still-high interest rates, which make carrying any excess stock prohibitively expensive; (2) ready availability and shortened leadtimes, which make it a lot more comfortable to live on a hand-to-mouth basis; and (3) the ongoing trend toward better computer controls.

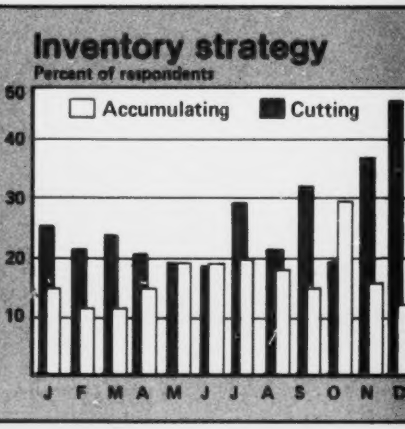
The sales segment of the stock/sales ratio doesn't look all that bad from a longer-run perspective. First, there's a lot of pent-up demand on the consumer level. Then there's the big 10% income tax reduction scheduled for this summer.

Given this demand forecast, the current inventory paring policy may well be reversed after midyear—with perhaps as much as $5 billion being added to business stocks over the last six months of the year. ***PW***



## PW monthly procurement status report





Source: NAPM

# Leadtimes register little change, inventories still being pared

The basically "no sweat" situation of late last year is spilling over into early 1982.

So say the vast majority of purchasing managers responding to the latest ***PurchasingWorld*** monthly procurement survey. And it's being verified by virtually every procurement index monitored by ***PW*** editors. Inventories continue to be cut, forward commitments are still declining and times remain low.

The last two barometers are actually moving against the seasonal trend. Vendor performance normally shows some slippage in January and February, reflecting cold weather and winter storms. Not so this time around.

***PW's*** exclusive leadtime index is registering right on the neutral "50" mark—suggesting that delivery units on average are unchanged from month-earlier levels. And the latest NAPM business survey shows 22% reporting faster deliveries—more than four times the small 5% who are being hit with some slowdown.

Meantime, on the inventory score, some 47% note additional stock paring—again more than four times the number who now report some accumulation. Equally impressive are the small number of items listed in short supply—now limited to only caustic soda, bearings, and oil-country goods. ***PW***

## Leadtimes and availability

**Chicago:** Corrugated waits are put at 2-3 weeks, but if pressed, suppliers will speed things up. Folding cartons are down to 3-4 weeks and chlor-alkalis have come in to ½ week. But stearate chemicals are out a bit (to 1½). On the low side are PVC (1), pigments (1-1½), c-r steel sheet (4-5), and steel plate (2).

**Cleveland:** Paints have come in a bit (to 3-4 weeks for coil coating and 2 weeks for maintenance types). Two-ply fiber drums can be had in 2 weeks with steel reconditioned drums in 1-2. Relatively small waits also for polyethylene and PVC (2-3), most alloying materials (on demand), and lumber and plywood (3).

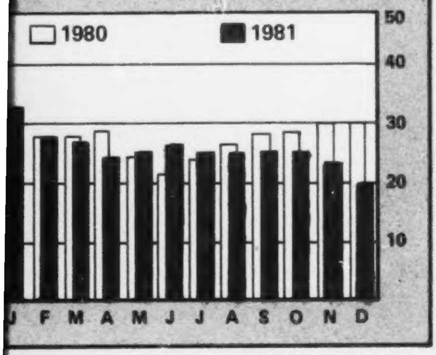
**Houston:** Few significant changes are noted—with these typical leads in weeks: paper packaging (2-6), mill steel (4-8), service center steel (2-4), forgings (6-8), steel castings (10-12), chemicals (4-6), welding supplies (4-6), tungsten carbide parts (14-18), machined parts (10-14), electric motors (33-41).

**Los Angeles:** Moving in a bit are electromechanical devices (to 6-8 weeks) and high-voltage specialty wire (6-8). But out slightly are galvanized steel (6-8), grey iron castings (4), pumps (4-6), and heavy-duty steel (10-11). Little change in items like copper tubing (7), copper fittings (5), and insulation material (4-6).

**Philadelphia:** Moderately shorter waits for HDPE plastic bottles (12 weeks versus 16 last fall). Other packaging is unchanged. Ditto, steel sheet and plate (4-6), standard fasteners (3-4), bearings (20-24), and rubber gaskets (6-8). But there is some tightness in gum turpentine.

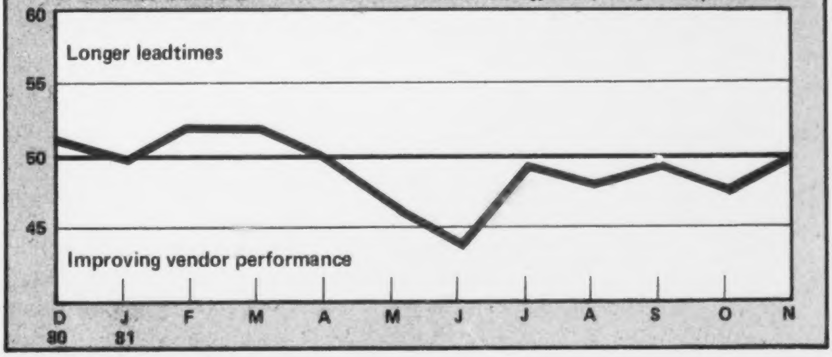
**Pittsburgh:** Things remain pretty much under control—with these low leads (in weeks) now prevailing: kraft bags (4-6), plastic bags (3-4), corrugated boxes (3-4), standard steel drums (2-3), groundwood papers (6-8), lumber and plywood (8-4), plastic films (2-4), steel strapping (2-3), and paint (3-5).

## orward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 9 |
| Plate (Phil) | 5 | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2½ |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2½ |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 6 | 11 |
| Galvanized (Chgo) | 4½ | 4½ | 9 |
| Structurals (Chgo) | 2 | 2 | 2½ |
| Structurals (Hous) | 17 | 17 | 30 |
| Tubing (Phil) | 7 | 7 | 7 |
| Greyiron Castings (LA) | 4 | 2 | 5 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 22 | 22 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 10½ | 10½ | 10½ |
| Capacitors (Chgo) | 5 | 5 | 7 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 7 | 8 | 9 |
| ICs (Linear) (Phil) | 12 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 6 | 6 | 6 |
| Relays (Chgo) | 12 | 12 | 12 |
| Resistors (Chgo) | 8 | 8 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2 | 2 | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | ⅕ | ⅕ | ⅕ |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 7 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 7 |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 3½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 2½ | 2½ | 2½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3 | 3 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2½ | 3½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 2½ | 2½ |
| Polyethylene Resin (Pgh) | 3 | 3 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 4 |
| PVC Resin (Pgh) | 3 | 3 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1½ |

## Paper

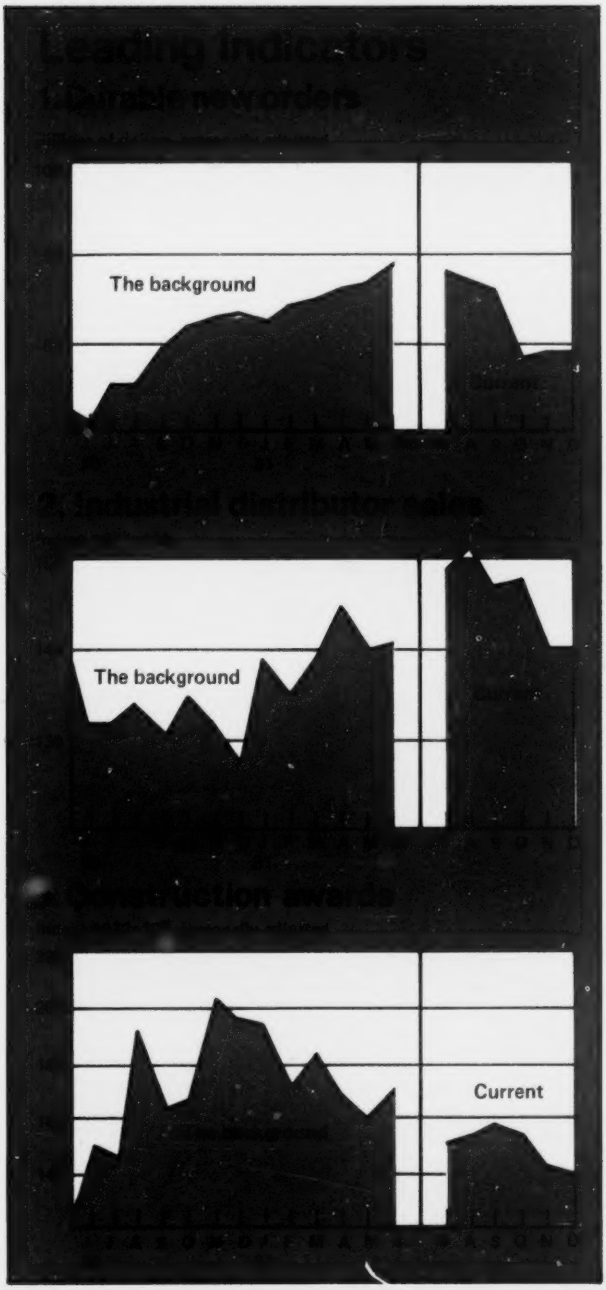
| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 9 |
| Aluminum Plate (Chgo) | 8 | 8 | 8 |
| Aluminum Sheet (LA) | 11 | 11 | 13 |
| Aluminum Sheet (Chgo) | 8 | 8 | 9 |
| Brass Castings (LA) | 4 | 4 | 9 |
| Brass Rods (Chgo) | 2½ | 2½ | 10 |
| Brass Sheet (Chgo) | 5 | 5 | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 5 | 5 | 7 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 7 | 7 | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 5 | 6 | 5 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 6 | 6 | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 5 | 7 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chgo) | ½ | ½ | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 5 | 4 | 11 |
| Rubber, Synthetic (LA) | 1½ | 1½ | 2½ |
| Rubber Hose (LA) | 7 | 7 | 7 |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |



**Business in brief:**

# End to recession may be in sight

The worst of the current economics downturn may be over. To be sure, industrial production and real GNP are still in the negative column. But there are now increasing indications of a bottoming out by late spring or summer.

For one, the decline in Uncle Sam's leading indicators has slowed down. The same is true of the NAPM Business Barometer (see chart below).

That's not to say, of course, that real GNP gains are just around the corner. This will have to wait until these leading indicators begin to head up again. But it does suggest that the sharp decline of recent months won't be repeated.

The upcoming 10% income tax cut, scheduled for July 1, will also help. Ditto, slowly declining interest rates—though the cost of money will probably have to fall a few more percentage points before it can have an appreciable impact on housing and auto sales.

Another faintly optimistic sign in the levelling off in new durable orders (chart, top left). And while one or two months don't make a trend, it's a welcome change from the precipitous declines of a few months back.

But again a note of caution: While offers have at least temporarily stabilized, backlogs continue to shrink. Until this series begins to rise, it would be unrealistic to expect any significant recovery in industrial production.

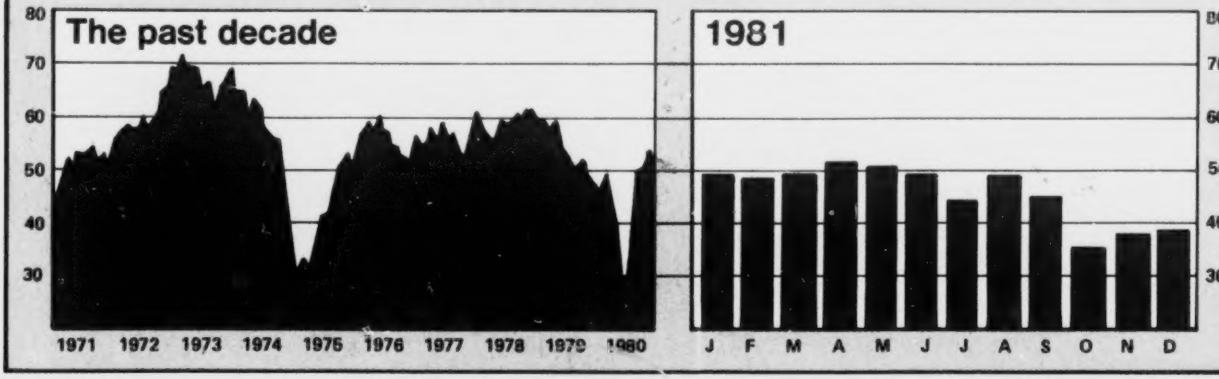
Industrial distributor sales (another lead indicator of production) presents a similar picture. The first halting signs of stabilization are apparent (center chart)—but at levels that are far under those of this past summer.

Construction, however, continued to be a major disappointment. New contract awards—a harbinger of building activity some 3-6 months down the pike—have dropped down to near the 140 mark (1972 = 100), the lowest level in over a year (bottom chart).

What does it all add up to? The weakness in construction, combined with still sluggish auto sales, would seem to preclude any quick economic bounceback. But given the positive factors noted earlier, output should pretty much level off by the spring quarter. ***PW***

## NAPM business barometer

**Based on five monthly indicators (employment, inventories, new orders, production, vendor performance)**



# Latest spot market prices

## Ferrous metals

| Ferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt. | 22.15 | 22.15 | 19.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts., cwt. | 29.20 | 29.20 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 24.25 | 21.50 |
| Steel, plates, Pitts., cwt. | 24.25 | 24.25 | 21.50 |
| Steel, sheets, H.R., Pitts., cwt. | 20.80 | 20.80 | 18.45 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 21.90 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 27.00 |
| Steel, basic wire, Pitts., cwt. | 25.95 | 25.95 | 22.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.22 | 1.22 | 1.29 |
| Brass, yellow, [sheet], lb. | 1.16 | 1.16 | 1.23 |
| Cadmium, ton lots, lb. | 1.40 | 1.40 | 2.50 |
| Copper, eletrolytic, wire bars, refd., lb | 0.80 | 0.80 | 0.89 |
| Copper sheet, over 24 in., lb. | 1.31 | 1.31 | 1.38 |
| Lead, common, N.Y., lb. | 0.30 | 0.31 | 0.37 |
| Magnesium, pig ingot, [99.8%], lb | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl | 418.00 | 414.00 | 355.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.70 |
| Nickel, eletrolytic, producer, lb. | 0.420 | 0.420 | 0.413 |
| Platinum, producer, oz. | 0.505 | 0.505 | 0.406 |
| Silver, N.Y., oz. | 8.32 | 8.87 | 15.63 |
| Tin, Straits, N.Y., lb. | 27.84 | 8.08 | 7.70 |
| Zinc, Prime West, East St. Louis, Lb. | 0.420 | 0.420 | 0.413 |
| Zinc, die casting alloy, No. 3, lb. | 0.505 | 0.505 | 0.408 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.435 | 0.435 | 0.375 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.50 | 1.48 | 1.76 |
| Caustic soda, 76% solid, drums, carlots, cwt | 26.00 | 26.00 | 17.50 |
| Cresylic acide [over 25%], tanks, lb. | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.710 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.345 | 0.345 | 0.365 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.420 | 0.420 | 0.375 |
| Polyethylene resin, high-pressure molding, carlots, lb | 0.45 | 0.45 | 0.45 |
| Polypropylene, G-P injection molding, lb., railcar shipment | 0.50 | 0.50 | 0.36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | 0.41 | 0.41 | 0.46 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.375 | 0.375 | 0.370 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66°, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots, lb. | 0.69 | 0.69 | 0.63 |
| Xylene, tanks, gal. | 1.48 | 1.48 | 1.43 |

## Paper

| Paper | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. 1 Grade | 45.50 | 45.50 | 44.30 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 21.00 | 21.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 300.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 316.11 | 315.06 | 337.79 |
| Lumber, 2x4, pine, mbf, cl | 294.20 | 291.00 | 300.74 |
| Plywood, plyform, 3/4", msf, cl | 587.95 | 588.10 | 575.73 |
| Plywood, 5/8", msf, cl | 339.38 | 340.29 | 365.99 |
| Cement, bulk, ton, tl | 60.98 | 60.98 | 58.11 |
| Sand, ton, cl | 5.99 | 5.99 | 6.02 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd | 45.10 | 45.10 | 42.80 |
| Crushed stone, 1 ½", ton, cl | 7.61 | 7.61 | 7.43 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.69 | 0.69 | 0.66 |
| Gypsym sheathing, ½"x1 "x8", msf, tl | 153.43 | 153.43 | 142.42 |
| Brick, common, per thousand, tl | 169.55 | 166.40 | 153.81 |
| Structural clay tile, 3"x12"x12", per M, 2000 | 167.45 | 167.45 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.70 | 6.69 | 6.23 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd | 0.235 | 0.229 | 0.276 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd | 1.00 | 1.01 | 1.05 |
| Cotton middling, 1", N.Y., lb | 0.580 | 0.549 | 0.875 |
| Printcloth, 48", 80x80, N.Y., spot. yd | 0.71 | 0.78 | 0.71 |
| Army duck, 37", 13 oz., yd | 1.80 | 1.70 | 1.67 |
| Blended printcloth, 64", 78x54, yd | 0.72 | 0.76 | 0.77 |
| 20s combed yarns | 1.73 | 1.88 | 1.87 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

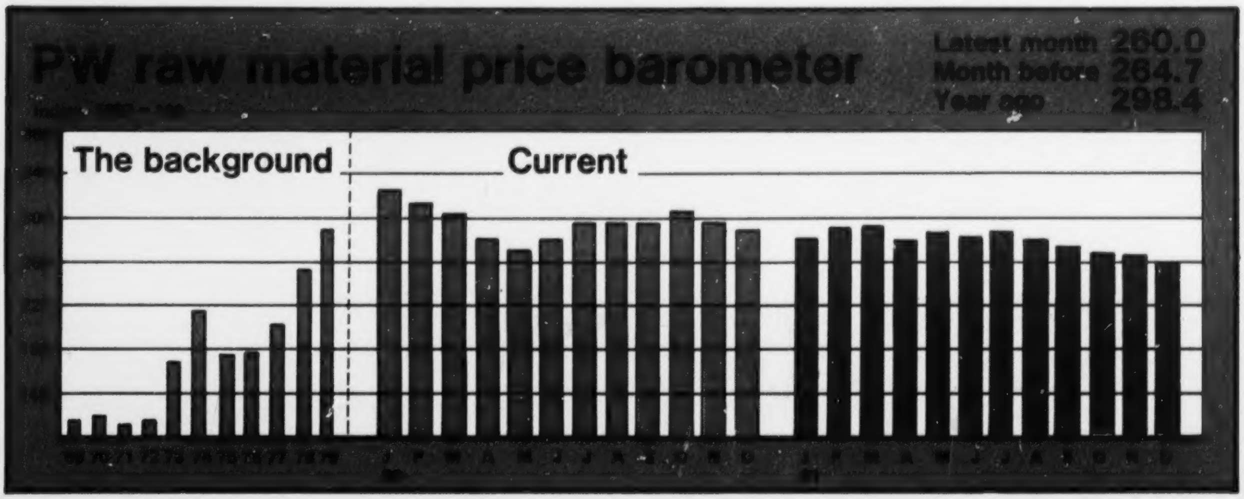
## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi, lb. | 0.59 | 0.59 | 0.57 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb | 0.485 | 0.485 | 0.708 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 22.00 | 24.25 | 25.50 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 33.30 | 33.75 | 35.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.955 | 1.010 | 0.890 |
| Gasoline, 94 oct., reg., Chi., tank car, gal | 0.983 | 1.003 | 0.945 |
| Heating oil, No. 2, Chi., bulk, gal | 0.983 | 0.980 | 0.880 |
| Heating oil, No. 4, N.Y., bulk, bbl | 100.60 | 100.60 | N.A. |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 24.50 | 25.75 | 25.00 |
| 45 wt. diesel, Gulf, spot, gal | 0.935 | 0.980 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.440 | 0.440 | 0.434 |

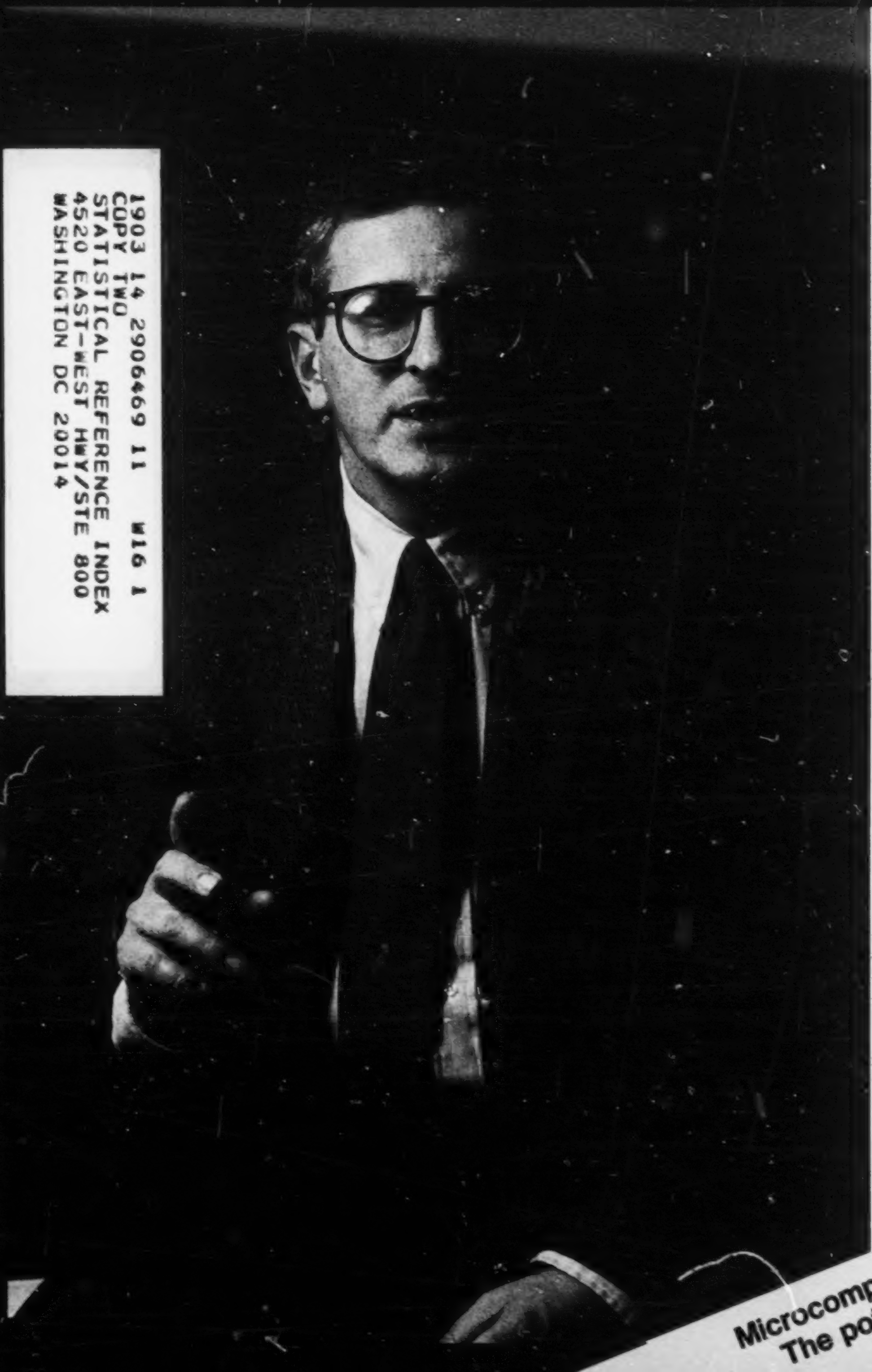
[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]



C8650-2 3/19/82

March 1982

# PurchasingWorld®



1903 14 2906469 11 W16 1
COPY TWO
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Packaging prices** will continue to go up, but only at a modest 6-7% rate. That's a percentage point or two under last year's average increase (p. 8).

**Winners** in our "*PW* Challenge" contest fared better than most forecasters with their predictions of major indicators (p. 34)

***PW TechFile*** spotlights basic information on hydraulic hose and fittings (p. 45).

## Air Products gives purchasing star billing

—page 30

Donald T. Shire, formerly corporate secretary and assistant general counsel at Air Products and Chemical, Inc., is now filling the new position of vice president, energy and materials. The new post gives him functional responsibility for purchasing activities on a corporation-wide basis. How this major reorganization was accomplished is discussed in our cover article.

**Microcomputers in purchasing: The potential, the problems**
**—page 46**

# PurchasingWorld®

Vol. 26, No. 3 - March 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
Richard L. Dunn

Executive Editor
Robert S. Reichard†

Managing Editor
Paul V. Farrell†

Technical Editor
John Fitts

Management Editor
Lea Tonkin

Production Editor
Teri Preston

Art Director
Richard Trefilek

**Consulting Editors**

Economics and Government
Dr. Louis J. Paradiso

Purchasing and the Law
Dr. John E. Murray, Jr.

Value Analysis
Lawrence D. Miles

Materials Management
Ernest C. Huge

Negotiating
Louis DeRose

Transportation
Dr. Leon Wm. Morse

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical
Publishing

DB a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **Buyers predict moderate packaging price increases.** Count on another year of basically moderate packaging price boosts, say respondents to recent ***PW*** survey.

30 **When top management makes a commitment to better purchasing.** Strong management direction and support enables Air Products' procurement function to upgrade organization, personnel, and performance.

34 ***PurchasingWorld* Challenge winners.** PMs compile excellent forecasting record in ***PW*** business forecasting contest.

45 *PW TechFile:* **Hydraulic hose and fittings.** A well-selected hose may last for years, but sooner or later it will have to be replaced. Here's basic information on what you're buying.

46 **Micros in purchasing: The potential, the problems.** The microcomputer offers the opportunity for high, new levels of sophistication in the purchasing function.

54 **Modest increases projected for energy tags.** 1982 energy price outlook shows average fuel and power bill going up only about 7-10% for the year.

58 **Freight rates through 1995.** Transportation costs will go up faster than inflation, but deregulation will have a positive influence.

## Around the purchasing world

10 **PW Predicts**
15 **PurchasingWorld Perspective**
18 **Washington Perspective**
21 **Purchasing and the Law**
22 **Effective Negotiating**
26 **Principles of Value Analysis**
28 **Materials Management Close-up**
60 **International Perspective**
69 **Product Briefs***
79 **SSCI Survey of Business Conditions***
81 **Product Information***
90 **Freight Newsbriefs**
94 **Transportation Briefing**
98 **NAPM Perspective**
110 **Latest Scrap Quotations**
114 **Procurement Status Report**
117 **Business in Brief**
121 **Industrial Prices at a Glance**
122 **Raw Materials price Barometer**

* Metalworking edition

ABP

BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010.
©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, A Company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659.

## PW Predicts...

**By Robert S. Reichard, prices, economics editor**

# Hot competition keeps fastener prices down

Price infighting now seems to be a way of life in the hotly competitive fastener industry.

A just-completed survey by *Fastener Industry News*, for example, suggests these recent discounts on the manufacturing level: stainless fasteners, 8-12%; lock washers, 10-15%; stainless screws, 30%; and anchor bolts, 50%. Distributors, meantime, report 30% off on small screws, nuts, and bolts, and 25% off on socket-screw products.

Imports also remain a key problem for vendors, with about half the respondents noting further overseas penetration. Products hardest hit by foreign fasteners include forged eyebolts; forged turnbuckles; brass fasteners; steel, brass, and stainless screws; structural fasteners; cap screws; lock washers; nuts; small screws; anchor bolts; and studs and rods.

Another worry is the continuing poor demand. Some 59% of surveyed manufacturers expect the first half of the year to be under or, at best, only equal to disappointing second-half 1981 levels.

To be sure, these same respondents see some second-half pickup. But by and large, gains are expected to be small—with 40% of the combined manufacturers and distributors still expecting overall 1982 to end up under or just equal to year-earlier levels.

Not surprisingly, overcapacity remains a king-sized headache. More than half of queried manufacturers, for example, expect first-half 1982 operations to remain under 80%—with some 25% putting their operating rates in the under-70% range.

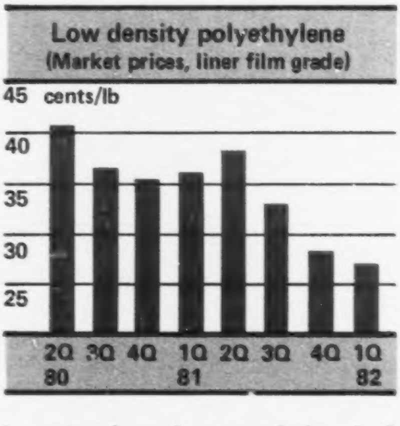
### Aluminum

Discounting is still the order of the day, with producer ingot being sold for as little as 60¢/lb (well under the 76¢/lb list). Merchant material is even lower (51-53¢/lb). And there are reports of some firms buying cheap ingot and having it processed by independent fabricators for less than the 76¢/lb ingot list. True, production cutbacks (the U.S. industry is now operating at only 70% of its potential) will eventually turn the tide. But with inventories up near a 6-month supply, it will take lots of time before official lists can be reattained. Even so, look for substantial hikes in 1983 as demand improves and energy costs continue to mount.

### Low density polyethylene

Demand remains extremely poor, with little pickup anticipated until the general economy begins to recover. Current lists are still little more than starting points for serious negotiation. And volume purchases are said to be going for as low as 26-28¢/lb in the key liner-film-grade area. That's some 10¢/lb under levels prevailing a year ago. Moreover, with 1982 operating rates expected to average in the low 76-77% range (as the industry adds another 10% onto its potential), any nearterm increases are likely to be modest. And the same goes for 1983, when another 7½% capacity addition comes on stream.

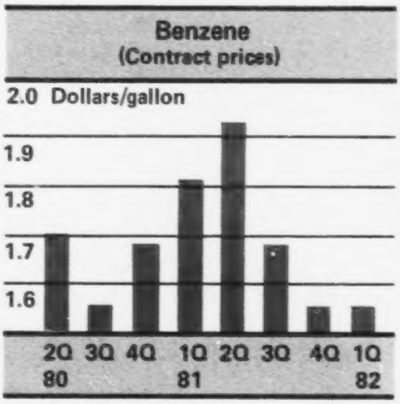
**Low density polyethylene**
**(Market prices, liner film grade)**



### Benzene

Contract prices are finally beginning to bottom out in the $1.55/gal range as inventories slowly begin to come down. But any significant rise is still nowhere in sight because of poor demand from both downstream derivatives and gasoline. (Benzene and other aromatics are used to boost octane levels.) At most, little more than a 5-10¢/gal increase is likely for spring. And even after that, boosts should be relatively modest, with any bounceback to $2/gal highly unlikely until late next year. Reason: more-than-ample capacity (with the industry expected to operate in the low 71-73% range this year and in the not-much-higher 78-80% range in 1983).

**Benzene**
**(Contract prices)**



### Machinery

Shopping around can yield good bargains in metalworking types—particularly as far as financing is concerned—as industry orders continue to sag. But don't expect it to last beyond late spring or summer. Indeed, by next year at this time, metalworking quotes could be averaging 10% above current levels. Increases in electric machinery, on the other hand, will be somewhat more modest, with totals expected to be up 6-8% over the next 12 months.

### Lead

Not even a severe winter has been able to turn the tide. Prices continue to back and fill around the 30¢/lb mark. To be sure, battery sales have increased a bit, but most of the gain came out of inventories rather than sparking new production. Add in slow overseas demand and rising producer inventories, and any significant nearterm pickup in the metal seems remote. But by the fourth quarter or early 1983, prices should again move up above the 35¢/lb level—if only because of intensifying mine and smelter cost pressures.

### Steel

Continued discounting just about rules out any meaningful price boosts this spring. So do the low prices now being quoted on imported material (many buyers dubbing the price breaks as "substantial"). Nor does 1982 demand seem all that promising. While some second-half pickup now looks like a pretty good bet, most analysts see total 1982 domestic shipments as lucky to reach last year's 87-million-ton level. Imports will also remain a big factor, although the 17 million tons anticipated for 1982 will be somewhat under the near-20 million tons that came in over the past year.

### Textiles

Prices remain soft, with some blended cloth said to be selling below cost. Manmade fiber tags have not been all that robust, either. Behind the easiness: consumer reluctance to spend and continuing import inroads. On the latter score, last year's incoming shipments of textiles and apparel hit 5.762 billion square yards equivalent—up 18% from the previous year. But most mill operators are betting on a gradual second-half recovery—enough to recoup early 1982 production losses and send prices up about 3-5% by the late-third or fourth quarter.

### Silver

Shaky gold tags preclude any substantial rally. Indeed, prices are likely to remain in or near the current range for at least another 3 months. Reasons: (1) less-than-sensational industrial demand, (2) the stockpile overhang, (3) the Hunts' silver holdings, (4) new supplies coming into the market from China, and (5) increased mine production (up 4% last year). Still another restraining factor: high world stocks, which are put at 1.37 billion ounces—actually above the 1.34 billion reported a year earlier.

### Phenol

Sagging demand from the housing industry plus low, 60% operating rates are putting additional downward pressure on prices. Shop around a bit, and you can probably find material for as little as 30¢/lb—far under the official 36¢/lb list level.

### ABS resins

Overcapacity continues to plague this plastic. Current operating rates vary

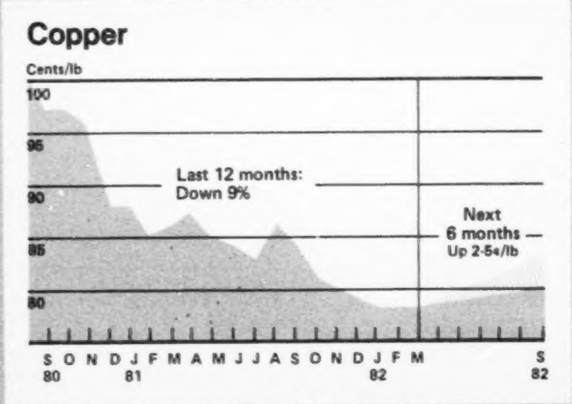
## Copper price scene

**CURRENT SITUATION: The red metal remains mired in a slump that has knocked better than 20¢/lb off the going price in just a year and a half.** True, production cutbacks here in the U.S. (1982 output could be off as much as 15%) seem to have finally halted the slide. But many overseas mines are still going full blast. Add in continuing lackluster demand—particularly from the key auto and housing markets—and **there's precious little to suggest any significant nearterm price rebound.**

**DEMAND: The current year doesn't look all that buoyant.** As of now, for example, U.S. consumption will do little more than match 1981's estimated 2.3-million-ton level. But the longer run outlook isn't all that bleak. **The Bureau of Mines puts the annual rate of increase through 1990 at a respectable 3%, a lot better than the virtually flat pace of the 1978-82 period.** Much of the longterm optimism is based on the growth of such relatively new markets as solar energy, electric cars, and desalination.

**SUPPLY: No problems here. But by the same token, the glut that has afflicted most other nonferrous metals is absent in the case of copper.** Free World inventories aren't all that much out of line. At the beginning of the year, for example, stocks were put at only 1.1 million metric tons—far under the peaks hit back in 1974-75. **Nor is any big amount of new capacity likely to upset the market.** Best bet: only about 120,000 tons of new potential in 1982, with an outside chance of another 140,000 from Iran.

**PRICE OUTLOOK: It's no longer a question of whether prices will rise, but rather one of when and by how much.** Point to keep in mind: It takes many mines close to $1/lb to break even these days—far more than they're currently getting. Moreover, it would take anywhere from $1.15-1.45/lb to justify any major expansion. But don't expect any fast bounceback to such levels. **More likely is a slow second-half advance,** with quotes moving up into the 50¢-$1/lb range by the fourth quarter or early 1983.



# Predicts...

anywhere from 50% to 60% of rated capacity. And with demand in the auto, appliance, and piping markets off substantially, the chances of any nearterm order rebound are not very bright. Prices, as might be exected, are quite easy, with high-impact injection molding grades going for as much as 25¢/lb under the official 95¢-$1/lb list. Any price recovery, despite growing cost pressures, will be slow. In fact, it would be quite surprising if quotes averaged much above 80¢/lb this year as industry operating rates struggle to reach the 60% level.

### Vinyl acetate

Hefty discounts are said to be available, with material reportedly moving for as low as 30¢/lb (well under the 37½¢/lb list). The same is true of the monomer's key raw material (acetic acid) for which quotes as low as 21¢/lb are noted (some 5½¢/lb under list).

### Tantalum

Good news for makers of heat-resistant alloys and electrical components. Declining tantalite prices have recently dropped to $50/lb of contained metal—a reduction of $35. The drop suggests that mill product prices will also be heading lower. Also pointing to continuing easiness: the under-$40/lb tantalite quotes recently prevailing on spot markets.

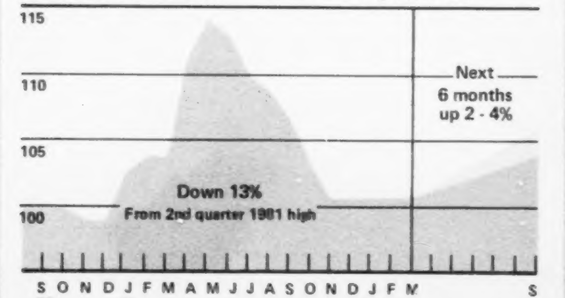
### Zinc

Prices have been holding steady in the low 40s range. But reports persist that some tonnage is going for under list—with generous credit terms available for those who press hard enough. Other factors likely to keep a lid on price hikes include: (1) settlement of the Tara Mines (Ireland) strike, which should ease the tightness in the concentrate market, (2) still-rising producer inventories, (3) poor demand from the construction and auto markets, and (4) recent European custom smelter reductions. As a result, it will likely be another 6-9 months before the metal can even begin to approach the 50¢/lb level. ***PW***

## Plastic resins price scene

**CURRENT SITUATION: Market remains weak,** with the downward thrust coming mostly from the recession-plagued auto and housing sectors. **Discounting tells the story; every, single, volume resin now moves at well under list.** The shaving in some cases ranges as high as 10¢/lb. The fact that demand for some resins has slipped under yearago levels, thus erasing a good part of the gains racked up in early 1981, suggests a **similar weak price pattern for at least another few months.**

**DEMAND: Producers remain cautiously optimistic**—pinning hopes on a second-half pickup. A spokesman for the Society of the Plastics Industry, for example, sees **about a 6-7% overall growth pattern for 1982 as a whole.** But not all resins are expected to share equally in the gain. **LLDPE will grow faster than average at the expense of conventional LDPE.** Polypropylene, expecting about an 8% advance, should also outperform the average. But reinforced plastics now look to increase by only about 5%.



**SUPPLY: The current glut is likely to continue for some time.** Superimpose 1982 demand estimates on industry potential, and such popular resins as PVC, polystyrene, and ABS all look to remain in the extremely low 60-70% operating range. And LDPE, HDPE, and PP producers won't do much better. Utilization rates in these sectors are expected to be in the 75-79% range. Equally significant, **there's more capacity coming this year:** 10% in LDPE, 5½% in HDPE, 3½% in PS, and 8½% in PVC.

**PRICE OUTLOOK: Rising cost pressures make increases inevitable—though it may not be before the second half that producers can even begin to recoup the decline of the past 6-9 months.** And it may take until early 1983 to bring averages back to levels prevailing two years earlier. Some typical market prices for 1982 as a whole: liner film grade LDPE, 36-38¢/lb; homopolymer polypropylene, 46-48¢/lb; general purpose PVC, 29-31¢/lb; and general purpose polystyrene, 31-33¢/lb.

Circle 106 on card→

### DRI econometric forecast:

# Freight rates through 1995

## Charges will go up faster than inflation, but deregulation will have a positive influence

Keeping close tabs on transportation cost pressures is becoming more important than ever. Reason: The trend is towards immediate and direct translation of cost hikes into rate increases.

Railroads already have the green light for this type of approach—and all signs point to its spreading to trucks, air, and waterborne freight.

It marks a major change from the previous concept when rate increases—rather than being automatic—were subject to governmental approval, and, thus, political pressures. The ICC until recently, for example, would mull over rail rate requests for as long as six months—with the final, okayed increase not always moving in concert with reported cost advances.

But the new rules have changed all this. Railroads can now directly post quarterly rate increases on the basis of what is forecast to happen in such key cost areas as fuel, labor, material, and capital equipment.

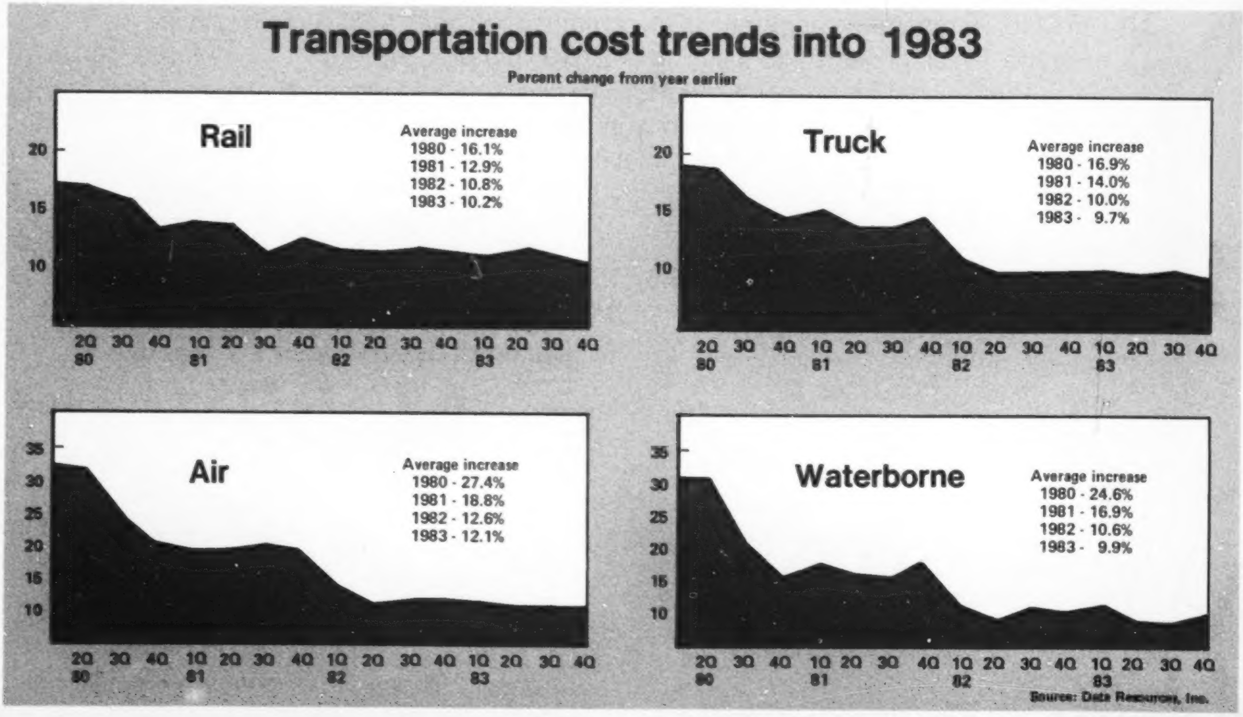
The problem, of course, is to know where these costs will be heading in the quarters and years immediately ahead. Data Resources, Inc., (DRI) is now projecting these costs for each of the major transportation modes—not only on an overall basis (see figure 1), but also for major regions of the country.

DRI points out that this type of information can be used for more than just budgeting for future rate increases. For example, cost forecasts (1) make it a lot easier to evaluate which mode or contract will be most economical in the long run, and (2) permit new insights into the financial implications of alternative escalation agreements.

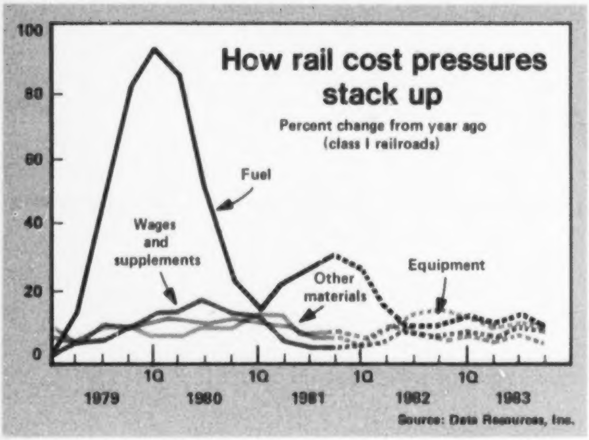
Commenting on its latest projections, DRI sees a fair amount of relief ahead. Specifically, a combination of (1) smaller fuel price increases, (2) more modest gains in labor costs (due to a slowing of underlying inflation), and (3) the impacts of deregulation on carrier operating efficiency, which should produce lower rates of modal cost inflation through the 1980s.

On the other hand, the firm warns not to expect miracles. DRI says that transportation will continue to be more energy-intensive than the rest of the economy during the next decade, and that wage increases will exceed overall manufacturing averages.

Upshot: Modal cost advances are expected to rise at a more rapid rate than general price inflation in the 1980s. Specifically, transportation cost averages will increase by over 11% per year for overall wholesale prices—and over



Source: Data Resources, Inc.


How rail cost pressures stack up

Percent change from year ago (class I railroads)

Source: Data Resources, Inc.

9% per year from 1985 to 1995 (compared to wholesale price increases of 7.8% per year).

Keeping these trends in mind, here's how DRI sees the cost situation shaping up in key transportation areas:

## Railroads

Two of the major factors here are mergers and deregulation. Clearly, reductions in terminal and yard facilities, growth in single-line service, elimination of duplicate functions, and equipment pooling, all offer the potential for cost savings—particularly for the Eastern mergers. Then, too, elimination of some branch line movements, new service offerings, and greater flexibility for rail management under deregulation all promise to generate new cost-cutting opportunities.

But there will be limits to overall reductions. Reason: the continued existence of the common carrier obligation during the 1980s—something that will likely hold up overall cost inflation as railroads are required to maintain specified service levels on regulated traffic.

Coming back to actual cost projections—the DRI analysis of Class I railroad costs is based on a consideration of both variable operating expenses (fuels, wages, maintenance, etc.) and new capital expenditures (new rail, ties, ballast, locomotives, railcars, trailers, and other transportation equipment). In all, over thirty separate cost components are forecast.

To simplify matters a bit, Figure 2 lumps all the above cost factors into four major subgroups: fuel, labor, equipment, and other materials—with quarterly percent changes (vis a vis a year earlier) given through 1983. If nothing else, the chart shows the huge upward fuel impact of 1979 and 1980. But this is changing. More particularly, a slowing down in the rate of fuel increases over the next two years is expected to hold the overall increase in rail costs (and hence rail rates) to a relatively modest 10-11%—well under the big 16% hike of 1980.

Nevertheless, fuel remains the fastest growing component of rail costs in the 1980s, advancing 16.7% per year to 1985 and 12.0% per year from 1985 to 1995.

Labor costs, meantime, increase 13.8% per year through 1985, declining to 10.5% per year in the 1985-1995 period. Other materials and supplies average near 9% inflation per year from 1980 to 1995.

To sum up for Class I railroad costs as a whole: DRI analysts look for an average rise of 10.3% per year from 1980 to 1995—which is substantially lower than the near 15% rate of the last few years.

## Motor carriers

The good news is that yearly cost increases could edge back down into the single-digit range by 1983.

In many ways, cost structures here are likely to benefit even more than railroads from deregulation. With most truckers able to shed restrictive operating, commodity, and routing regulations in the early 1980s, a complete overhaul of carrier distribution systems will occur.

To be sure, the Administration's proposed increases in truckers' Highway Fund contributions may go through. But even so, the impact on carrier operating costs will average less than 2% per year.

Finally, many carriers will explore new ways of reducing costs that were not widely used in the 1970s. These include leasing of equipment, employing exempt haulers for certain operations, and the use of TOFC for long-haul intercity shipments.

Increased terminal/route efficiencies and the greater use of TOFC are the primary factors underlying the difference. Specialized carrier cost inflation at 9.2% per year through 1995 reflects the increased use of doubles in interstate service (a likely regulatory change in the early 1980s).

Private fleet costs are expected to advance at 9.6% per year over the 1980 to 1995 period, as more specialized types of services are required by intercorporate shippers—a development which will raise costs at a faster rate than for regulated fleets. Finally, exempt haulers bear the highest rate of cost increase to 1995 (9.7% per year) because their regulation-induced scale of operation will limit any real efficiency gains.

## Waterborne carriers

A higher fuel share, limits on further increases in labor productivity, and minimal improvements in diesel technology until late in the decade will all combine to produce an average 10.3%-per-year growth in barge operating costs through 1995—the highest of all ground transportation modes.

Note, too, that this does not consider the impact of full public cost recovery (as proposed by the Administration) for federal inland waterway navigation expenditures. An increase in waterway user charges (to 100% of operations and maintenance cost recovery) would add up to 25% (on a fuel tax basis) for certain movements—and would boost overall waterway operating costs by 1% to 2% per year to 1995.

## Air cargo

Costs are expected to advance a bit more than 12% per year from now through the end of 1983, and by 10.2% during the overall 1980 to 1995 period. While down significantly from the past year's 19% boost, this is slightly above the all-transportation average—and reflects the higher fuel intensity of the operations compared to competitive modes.

The introduction of new, fuel-efficient aircraft (the Boeing 757, for example) as well as the retrofitting of older models with more fuel-efficient engines in the mid-1980s should help hold down fuel costs. But fuel will still remain a constant share of total operating costs—primarily because of the 12% increase per year projected for jet fuel costs over the decade. ***PW***

# Steel inventories begin to edge lower

Steel inventories—in the hands of both distributors and buyers—are beginning to edge lower (see chart). And all signs point to further declines in March and April.

At least, that's what new surveys seem to suggest. A big 40% of the purchasing managers responding to the latest NAPM steel buying query say that they'll be cutting stocks over the next six months—five times as many as the small 8% who now contemplate increases.

And distributors replying to the latest Steel Service Center Institute (SSCI) study tell much the same story. Indeed, the determination to pare inventories seems even more pronounced here—with 54% saying they'll be attempting to cut stocks over the next few months, versus only 2% who feel that some increases may be in order.

Zero in on steel service centers, and the suggestion of big price breaks is even more apparent. In the carbon steel sector, some 4% now say overseas offerings are more than 20% under comparable domestic products, with another 15% putting the savings in the 10-20% range.

A similar situation seems to be shaping up in stainless. The close to one out of every three service centers who now note 20%-and-bigger bargains is the highest figure in several years. And it marks the fourth consecutive month of gain in the price-bargain category.

Surprisingly enough, however, few buyers and service centers expect to increase their dependence on foreign metal over the next six months. One likely reason: the expectation of U.S. government action that will probably limit any further increase in the inflow of overseas steel.

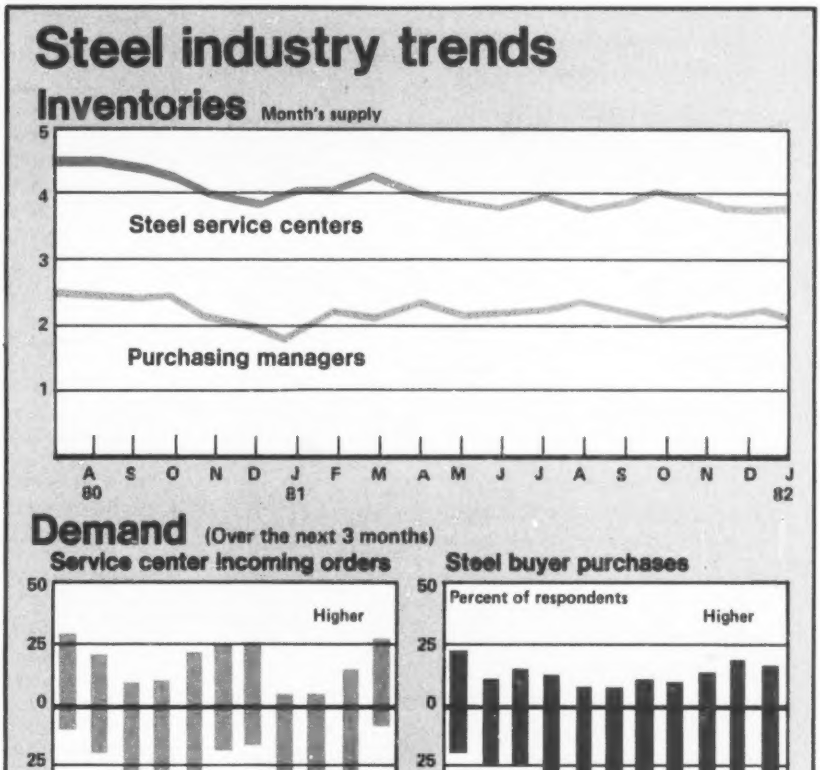
Other major findings of these latest steel surveys:

■ **Availability:** No problems anywhere—with 100% of both buyers and service centers saying that they now see clear sailing over the next few months. Not a single product is expected to be in tight supply.

■ **Demand:** A mixed picture is beginning to emerge—a welcome change from the steady decline of recent months. Still on the bearish side is the fact that many more buyers will be cutting steel purchases than stepping them up over the next three months.

But this is being offset by the expectation on the part of some 37% of responding service centers that there will be an increase in their own incoming steel orders over the next three months. It's the first time since September that expected increases have topped expected decreases.

■ **Speed of payment:** Foot-dragging on the part of steel buyers is noted by distributors—with 20% of service center customers now said to be paying "less promptly." This could well reflect the fact that some 50% of steel-consuming companies are themselves being hurt by late payments. ***PW***



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

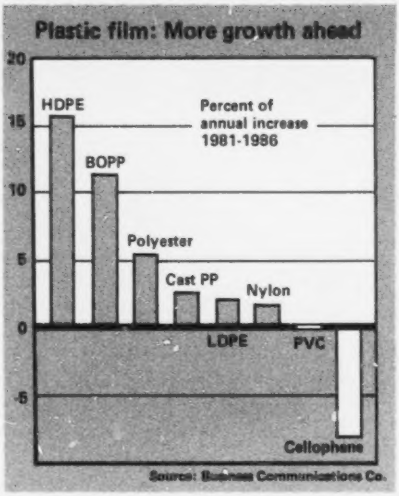
← Circle 151 On Card

# Plastic market change

Some fairly significant changes may be in store for the close-to-5-billion-lb plastic film market over the next few years.

New projections by Business Communications Co. (BCC), for example, suggest a slowdown in overall growth through 1986 (to only a 3.9% annual rate), but an increasing emphasis on multilayer types and such individual materials as high-density polyethylene (HDPE) and bi-oriented polypropylene (BOPP) is also expected.

A closer look at the Stamford, Conn.-based consulting firm's 175-page study suggests the following plastic-by-plastic trends:



Source: Business Communications Co.

- **HDPE:** Biggest annual advances (16.9%) are anticipated here (see chart)—sparked by the increasing popularity of merchandise bags and coextruded films for feed applications.
- **BOPP:** A substantial 12.4% annual gain is seen here—thanks to new, high-barrier coextruded films.
- **LDPE:** Only a low, 2.6% growth rate for this still-No. 1 film material is anticipated. Reason: The impact of LLDPE films and the resulting downgauging effect. LLDPE will make its biggest inroads in stretch pallets and bundling wraps and the trash bag market.
- **Polyester film:** A good, 5.5% annual rate of increase raises the possibility of a major shortage in PET films by as early as 1983.
- **PVC:** A no-growth situation is seen here—though the film will continue to maintain its grip on the meat and poultry segment of the market. ***PW***

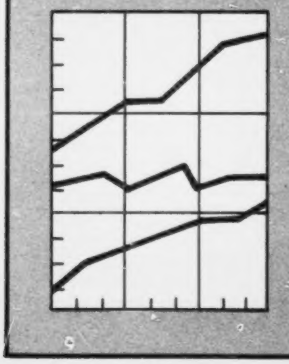
# Little change in paper sales

It's beginning to look like a rather lackluster year for the paper industry—with demand in most areas not expected to show much change.

Recent projections by the St. Regis Paper Company provide some hints on how at least one company sees the current year shaping up:

- **Paper:** A modest 2.2% increase in coated groundwood paper No. 5 is forecast—based on the assumption of a 3.6% increase in second-half 1982 magazine lineage and growing demand from the commercial printing sector.
- **Unbleached kraft paper:** A poor first half should give way to some second-half improvement—with the gains over the last six months predicated on better housing performance and a relatively high level of consumer spending. But the pickup won't be enough to prevent a decline of 0.5% for the year as a whole.
- **Unbleached linerboard:** Despite a strong rebound late in the year, shipments will show a similar 0.5% decline—with totals reaching only 14.3 million tons.
- **Fiber boxes:** The situation is much the same here—with about a 0.7% decline expected for the year. One bright spot here: Lower feed prices should stimulate purchases of cartons by the food industry—and thus buffer declines in other enduse markets. ***PW***

# Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 91.00 | 93.00 | 101.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 78.00 | 82.00 | 94.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.64 | 0.65 | 0.77 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.595 | 0.585 | 0.650 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.60 | 0.61 | 0.73 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.350 | 0.350 | 0.395 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.265 | 0.255 | 0.360 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.280 | 0.275 | 0.405 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.14 | 0.15 | 0.14 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.19 | 0.18 | 0.21 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 9.00 | 10.00 | 18.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 7.00 | 7.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| APS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.08 | 0.09 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.14 | 0.16 | 0.38 |

# PMs report leadtimes are down across the board

Not even recent winter storms have had much impact on overall procurement performance—with virtually every single item available without any extended wait.

To be sure, delivery times are no longer narrowing, as they were last year. But that's only because they're already close to rock-bottom levels. Average waits, as measured by ***Purchasing World's*** exclusive leadtime index (see chart), for example, are at their lowest level since we began to publish this index a few years back.

The trend is further confirmed by the NAPM series on faster deliveries. Some 25% reported a speedup over the latest available month—just about drowning out the small number (4%) who noted some slowdowns.

Equally significant, only three items are now on the NAPM short-supply list: oil country tubular goods, bearings, and caustic soda. And judging from ***PW's*** city-by-city rundown, tightness in the latter areas is fast disappearing.

Two other indications of a basically easy situation: (1) PMs continue to reduce inventories—with parers outnumbering accumulators by about a 3:1 margin, and (2) the number of buyers committing 90 days or more in advance for production materials has dropped down to 18%—far under the near-30% figure of a year earlier. ***PW***

## Leadtimes and availability

**Chicago:** While MRO items normally take 2-4 weeks, suppliers, if pressed, will deliver in 2-3 days. Ditto corrugated, where official waits are 2-3 weeks, and declines in aluminum bars (to 6) and common alloy sheet and plate (to 6-8). Going out are capacitors (12), printed circuit boards (6), and semiconductors (12).

**Cleveland:** Some fractional increases in glassines (4-5) and cold-finished aluminum (12). Most other items readily available at these leads: folding cartons (4), 2-ply fiber drums (2), steel canisters (6), maintenance paint (2), polyethylene and PVC (2-3), alloying materials (on demand), and lumber (3).

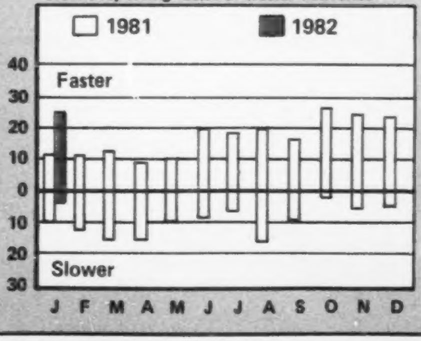
**Houston:** Waits on Japanese-made, shop-fabricated, small pressure vessels are moving down—though they're still above comparable domestic leads. Some cuts in welding supply leads are seen later this year (from current 4-6 week level). Most other MRO unchanged at 2-4 weeks.

**Los Angeles:** Smaller leads predominate. New lower waits (in weeks) include adhesives (1½), heavy-duty aluminum sheet and pipe (16-21), silbrased fittings (13), electric cable (26-39), fasteners (4-5), paints (3-4), and copper tubing and fittings (5-7). But up a bit are brass castings (5-6) and electromechanical devices (9).

**Philadelphia:** Paper towels and tissues are down to ½ week. Other MRO items—cutting and lube oils (6-8) and standard drills and taps (2-4)—are down about 2 weeks from a year ago. No problems with chemicals—with even caustic lessening up. No change in steel sheet and plate (4-6), standard fasteners (3-4) and ICs (12).

**Pittsburgh:** Polyethylene resins are in a week (to 4). Ditto PVC (also to 4), and metal hardeners (to 2). Basically unchanged are lumber and plywood (2-4), steel strapping (2-3), maintenance paint (5), plastic bags (3-4), corrugated boxes (3-4), standard steel drums (2-3), glassines and greaseproof papers (5-6).

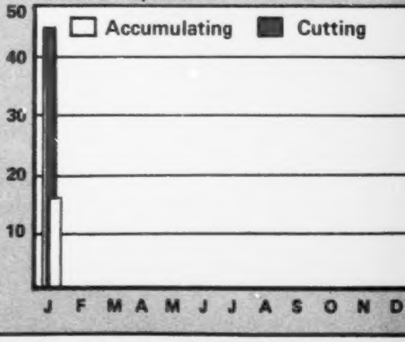
## PW monthly procurement status report



**Delivery performance**

**Percent reporting faster or slower deliveries**

Source: NAPM



**Inventory strategy**

**Percent of respondents**

# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 7 |
| Plate (Phil) | 5 | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 7 | 11 |
| Galvanized (Chgo) | 4½ | 4½ | 7 |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 30 |
| Tubing (Phil) | 10 | 10 | 10 |
| Greyiron Castings (LA) | 4 | 4 | 4 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 22 | 22 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 8½ | 10½ | 10½ |
| Capacitors (Chgo) | 11 | 5 | 7 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 7 | 9 |
| ICs (Linear) (Phil) | 12 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 10 | 6 | 6 |
| Relays (Chgo) | 12 | 12 | 12 |
| Resistors (Chgo) | 10 | 8 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2 | 2 | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | ⅕ | ⅕ | ⅕ |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 7 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 7 |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 3½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 1½ | 2½ | ½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 5 | 3 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2 | 2½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 2½ | 2½ |
| Polyethylene Resin (Pgh) | 4 | 5 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 3 |
| PVC Resin (Pgh) | 4 | 5 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

## Paper

| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

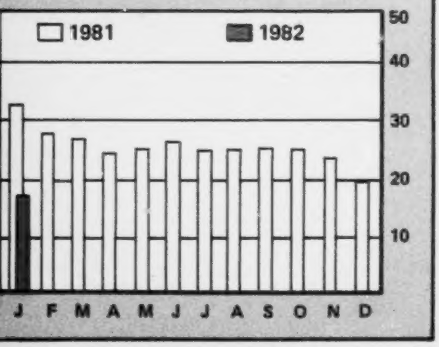
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 8 |
| Aluminum Plate (Chgo) | 7 | 8 | 8 |
| Aluminum Sheet (LA) | 12 | 11 | 10 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 5½ | 4 | 7 |
| Brass Rods (Chgo) | 2½ | 2½ | 10 |
| Brass Sheet (Chgo) | 5 | 5 | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 6 | 5 | 6 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 7 | 6 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 6 | 5 | 8 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

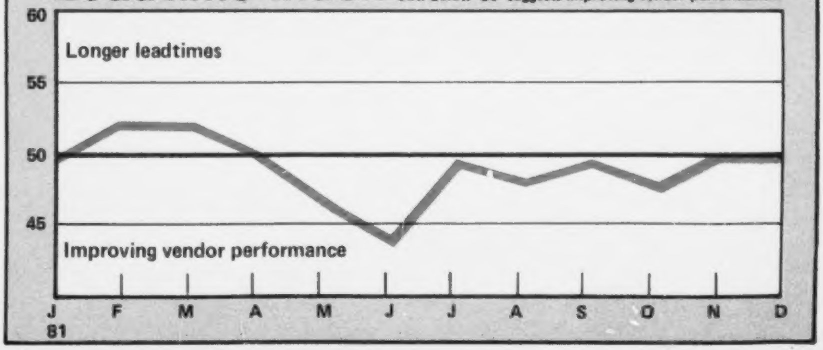
| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 4½ | 6 | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 5 | 7 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chgo) | ½ | ½ | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 10 | 5 | 9 |
| Rubber, Synthetic (LA) | 1½ | 1½ | 2 |
| Rubber Hose (LA) | 7 | 7 | 6 |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## Forward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



**Business in brief:**

# Some signs of hope

There are still precious few signs of the solid pickup that Administration economists say is just around the corner.

To be sure, there are more and more indications that the worst is now behind us—witness the leveling out in both Uncle Sam's index of leading indicators and the even-more-sensitive NAPM Business Barometer. The latter, for example, has stabilized after the nearly steady decline of the past nine months (see chart below).

On the other hand, the latest reading here (38.2) suggests that the negative forces of the past few months are still fairly potent. In any event, no solid recovery can be anticipated before this bellwether indicator of activity some 3-4 months down the pike is back up at the 50-or-higher level.

Incidentally, this index is now being revised to make it even more sensitive to nearterm change. Increased weights are being assigned to new orders—a series that consistently has lead the economy on both the up and down sides.

Meantime, businessmen also seem to be having doubts about any imminent recovery. Business confidence continues to edge lower (top chart). And while the figures are above the lows of last year, the latest reading does seem to indicate that corporate executives will be thinking twice before embarking on any big, new expansion or modernization projects.

Nor does any quick pickup in construction seem likely—not with interest rates holding at current levels. If there is any doubt on this score, take a look at housing permits (a lead indicator of future housing starts). While some fractional improvement is noted (center chart), figures here, too, will have to go substantially higher if even a modest recovery to a 1.3-million-unit year is to be achieved.

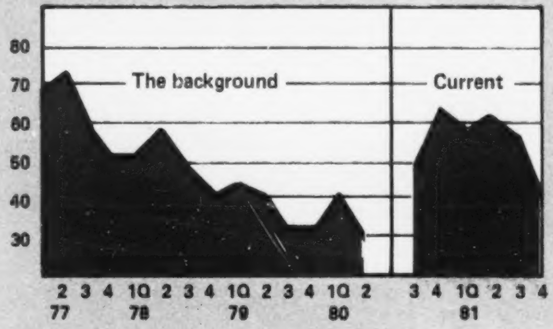
On a somewhat more rosy note, the durable goods, purchased material, stock/sales ratio has stopped rising—with the current levels well under the highs of the previous downturn (bottom chart).

What does it all add up to then? ***PurchasingWorld*** economic equations suggest that while second-quarter real GNP will do little more than mark time, a modest pickup is likely by summer or early fall. And by the fourth quarter, totals could be 3-4% above current levels. Not great—but at least a move in the right direction. ***PW***

## Leading indicators

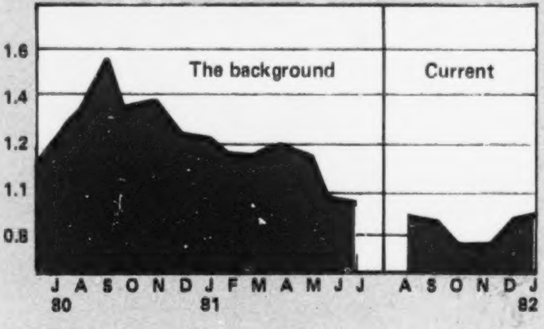
### 1. Business confidence

Scale 0 - 100



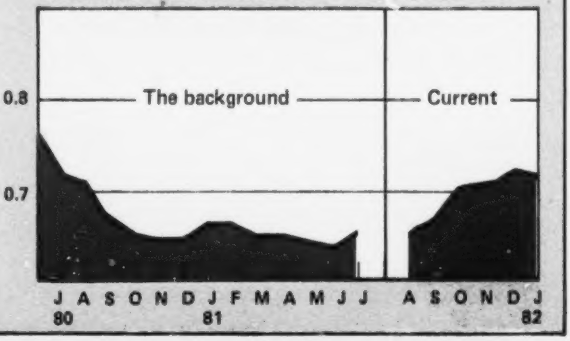
### 2. Housing permits

Millions of units, seasonally adjusted

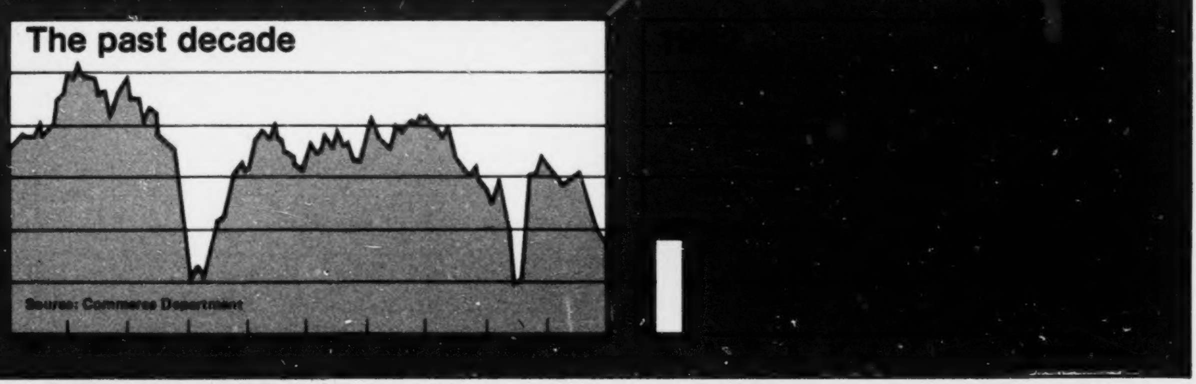


### 3. Stock/sales ratio

(Durable purchased materials) Ratio, seasonally adjusted



## NAPM business barometer



# More of the same on prices

Early 1982 seems to be taking over where late 1981 left off.

Not only are price hikes continuing to moderate, but the latest readings are now becoming more and more sprinkled with "no changes" and even a smattering of actual declines.

Best performances—at least from the buyer's standpoint—are being turned in by the energy and basic raw material sectors. On the energy front, for example, continued easiness in crude petroleum has brought the steady, refined-product price runup of the past year to a dead halt, with not even the recent frigid weather able to reverse the overall trend.

Zero in on metals and a similar pattern is readily apparent. There's now plenty of discounting in both steel and nonferrous metals. And the same is basically true of metal scrap, many chemicals, plastic resins, paper products, and building materials.

There has also been considerable relief in some of the more highly fabricated sectors. To be sure, such items as electronic components still show about a 6% advance over year-earlier levels. Take into account all of the unofficial discounting and the figure here might well turn out to be negative. *PW*

## This month's breakdown

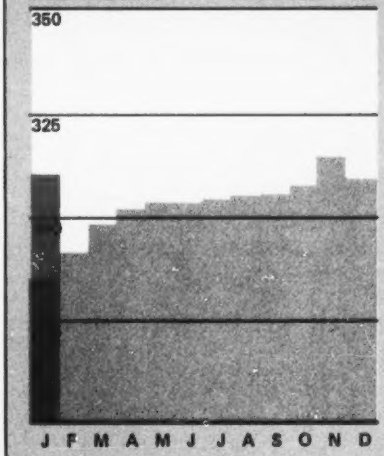
| | Latest level (Dec.) | Percent change from: Month ago | Percent change from: Year ago |
|---|---|---|---|
| Bearings | 321.6 | 0 | 15.3 |
| Bolts, nuts, etc. | 269.3 | 0.4 | 8.0 |
| Chemicals, inorganic | 303.0 | 0.5 | 16.5 |
| Chemicals, organic | 386.0 | −0.6 | 6.1 |
| Concrete products | 293.5 | 0.1 | 5.7 |
| Cutting tools, small | 268.5 | 0.5 | 9.7 |
| Electrical instruments | 251.1 | 1.1 | 18.8 |
| Electric lamps (bulbs) | 276.2 | −1.4 | 6.5 |
| Fans and blowers | 328.6 | 0 | 6.5 |
| Fittings, industrial | 304.1 | 0 | 1.8 |
| Foundry and forge products | 337.5 | 0.4 | 6.1 |
| Fuel oil (residual) | 1175.8 | 0.5 | 0.8 |
| Furniture, commercial | 264.1 | 0.3 | 9.0 |
| Gasoline | 717.3 | −0.5 | 10.8 |
| Glass, flat | 218.5 | 0 | 7.6 |
| Glass containers | 334.8 | 0 | 7.5 |
| Gypsum products | 249.7 | −0.6 | −1.2 |
| Hand tools | 323.3 | 0.1 | 9.1 |
| Hand tools, power driven | 214.7 | 0.3 | 7.5 |
| Industrial furnaces | 340.7 | 0.5 | 10.0 |
| Integrating and measuring instruments | 205.9 | 0.4 | 8.8 |
| Internal combustion engines | 312.0 | −0.3 | 10.4 |
| Lubricating oil | 888.1 | 0 | 12.1 |
| Lumber millwork | 273.6 | 0.6 | 0.1 |
| Material handling equipment | 284.6 | 0.5 | 8.5 |
| Metal containers | 318.2 | 0 | 4.9 |
| Metal mill shapes (nonferrous) | 305.5 | −0.3 | 3.2 |
| Metal tanks | 310.5 | 0 | 6.7 |
| Motors and generators | 308.0 | 0.1 | 11.2 |
| Motor trucks | 278.4 | 0 | 12.8 |
| Office and store equipment | 148.9 | 0.6 | 3.6 |
| Paperboard | 259.3 | −0.9 | 8.2 |
| Paper boxes and shipping containers | 249.4 | 0.1 | 9.9 |
| Paper office supplies | 223.0 | 0.3 | 10.3 |
| Paint | 256.7 | 0.7 | 6.3 |
| Plastic resins | 297.0 | 2.1 | 8.4 |
| Precision measuring tools | 233.1 | 2.5 | 8.8 |
| Pumps and compressors | 338.4 | 0.8 | 10.9 |
| Refractories | 309.8 | 0 | 13.4 |
| Rubber belts and belting | 312.3 | 0.8 | 17.2 |
| Scales and balances | 221.8 | 0.2 | 2.8 |
| Steel products | 347.5 | 0.1 | 11.6 |
| Switchgear | 264.9 | 1.6 | 6.3 |
| Textiles, synthetic fibers | 182.4 | −0.1 | 6.7 |
| Textiles, gray fabrics | 147.7 | −0.1 | 2.6 |
| Tires and tubes | 265.9 | −0.6 | 4.4 |
| Transformers and power regulators | 218.7 | −1.3 | 14.4 |
| Valves, industrial | 321.9 | 0.6 | 8.1 |
| Welding equipment | 270.0 | 1.0 | 8.3 |
| Wire and cable | 206.7 | −0.5 | −2.6 |

## Industrial prices at a glance

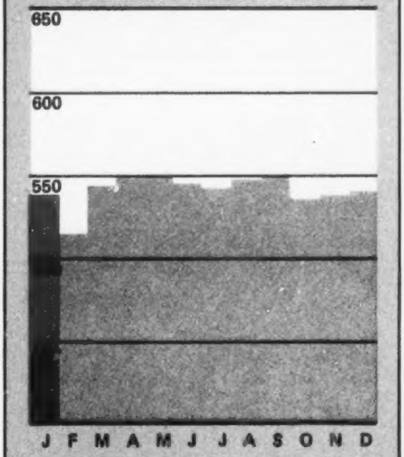
1981 ▨ 1982 ■

### All items

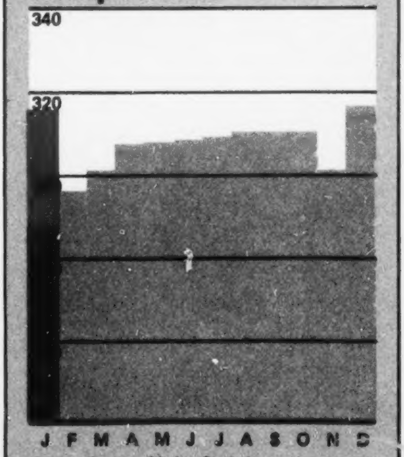
Index: 1967 = 100



### Raw materials



### Semifabs, components

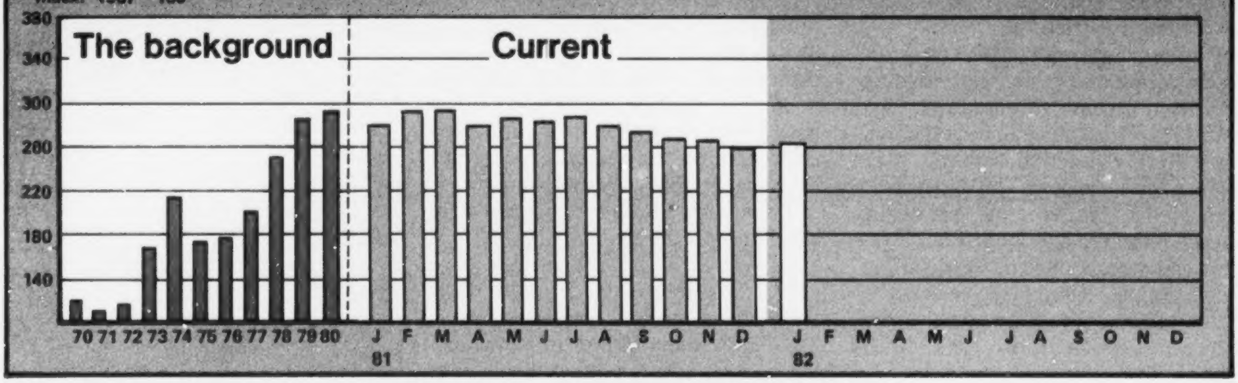


Source: Bureau of Labor Statistics

# PW raw material price barometer

| | |
|---|---|
| **Latest month** | **264.7** |
| **Month before** | **264.2** |
| **Year ago** | **291.6** |

Index: 1967 = 100



# Latest spot market prices

## Ferrous metals

| Ferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt | 23.40 | 22.15 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, pitts, cwt | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts., cwt | 29.20 | 29.20 | 29.20 |
| Steel, plates, Chi., cwt | 24.25 | 24.25 | 21.50 |
| Steel, plates, Pitts., cwt | 24.25 | 24.25 | 21.50 |
| Steel, sheets, H.R., Pitts., cwt | 20.80 | 20.80 | 19.50 |
| Steel, sheets, C.R., Detroit, cwt | 24.65 | 24.65 | 23.15 |
| Steel, strip, C.R., Chi., cwt | 29.05 | 29.05 | 28.85 |
| Steel, basic wire, Pitts., cwt | 24.20 | 25.95 | 22.20 |

## Nonferrous metals

| Nonferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 3.78 |
| Brass, red, 85%, [sheet], lb. | 1.20 | 1.22 | 1.28 |
| Brass, yellow, [sheet], lb | 1.14 | 1.16 | 1.22 |
| Cadmium, ton lots, lb | 1.40 | 1.40 | 2.00 |
| Copper, eletrolytic, wire bars, refd., lb. | 0.78 | 0.80 | 0.86 |
| Copper sheet, over 24 in., lb. | 1.29 | 1.31 | 1.37 |
| Lead, common, N.Y., lb. | 0.30 | 0.30 | 0.30 |
| Magnesium, pig ingot, [99.8%], lb | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 375.00 | 418.00 | 370.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.70 |
| Nickel, eletrolytic, producer, lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 8.04 | 8.32 | 13.30 |
| Tin, Straits, N.Y., lb. | 7.72 | 7.84 | 7.23 |
| Zinc, Prime West, East St. Louis, Lb. | 0.420 | 0.420 | 0.413 |
| Zinc, die casting alloy, No. 3, lb. | 0.485 | 0.505 | 0.460 |

## Chemicals

| Chemicals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.445 | 0.435 | 0.395 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.51 | 1.50 | 1.79 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acide [over 25%], tanks, lb. | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.710 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.345 | 0.345 | 0.365 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.420 | 0.420 | 0.375 |
| Polyethylene resin, high-pressure molding, carlots, lb. | 0.45 | 0.45 | 0.45 |
| Polypropylene, G-P injection molding, lb., railcar shipment | 0.40 | 0.50 | 0.36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | 0.41 | 0.41 | 0.46 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.375 | 0.375 | 0.370 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66°, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots, lb. | 0.69 | 0.69 | 0.63 |
| Xylene, tanks, gal. | 1.48 | 1.48 | 1.43 |

## Paper

| Paper | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. 1 Grade | 45.50 | 45.50 | 44.30 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 21.00 | 21.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 270.00 | 300.00 | 300.00 |

## Building materials

| Building materials | Latest price | Previous month | Year ago |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 313.91 | 316.11 | 338.18 |
| Lumber, 2x4, pine, mbf, cl | 293.63 | 294.17 | 300.07 |
| Plywood, plyform, 3/4", msf, cl | 577.00 | 582.95 | 597.58 |
| Plywood, 5/8", msf, cl | 340.24 | 339.38 | 360.74 |
| Cement, bulk, ton, tl | 62.13 | 60.98 | 59.18 |
| Sand, ton, cl | 5.98 | 5.98 | 5.92 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.42 | 45.10 | 43.47 |
| Crushed stone, 1 ½", ton, cl | 7.69 | 7.61 | 7.31 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.73 | 0.69 | 0.67 |
| Gypsym sheathing, ½"x1 "x8", msf, tl | 153.85 | 153.43 | 142.42 |
| Brick, common, per thousand, tl | 169.30 | 169.55 | 154.92 |
| Structural clay tile, 3"x12"x12", per M, 2000 | 168.68 | 167.45 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.70 | 6.70 | 6.23 |

## Textiles

| Textiles | Latest price | Previous month | Year ago |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.239 | 0.235 | 0.265 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd | 1.00 | 1.00 | 1.05 |
| Cotton middling, 1", N.Y., lb. | 0.591 | 0.580 | 0.856 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | 0.71 | 0.71 | 0.68 |
| Army duck, 37", 13 oz., yd. | 1.80 | 1.80 | 1.67 |
| Blended printcloth, 64", 78x54, yd. | 0.72 | 0.72 | 0.77 |
| 20s combed yarns | 1.73 | 1.73 | 1.87 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

## Hides and rubber

| Hides and rubber | Latest price | Previous month | Year ago |
|---|---|---|---|
| Hides, cow, light native, packers, Chi, lb. | 0.59 | 0.59 | 0.52 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.473 | 0.485 | 0.693 |

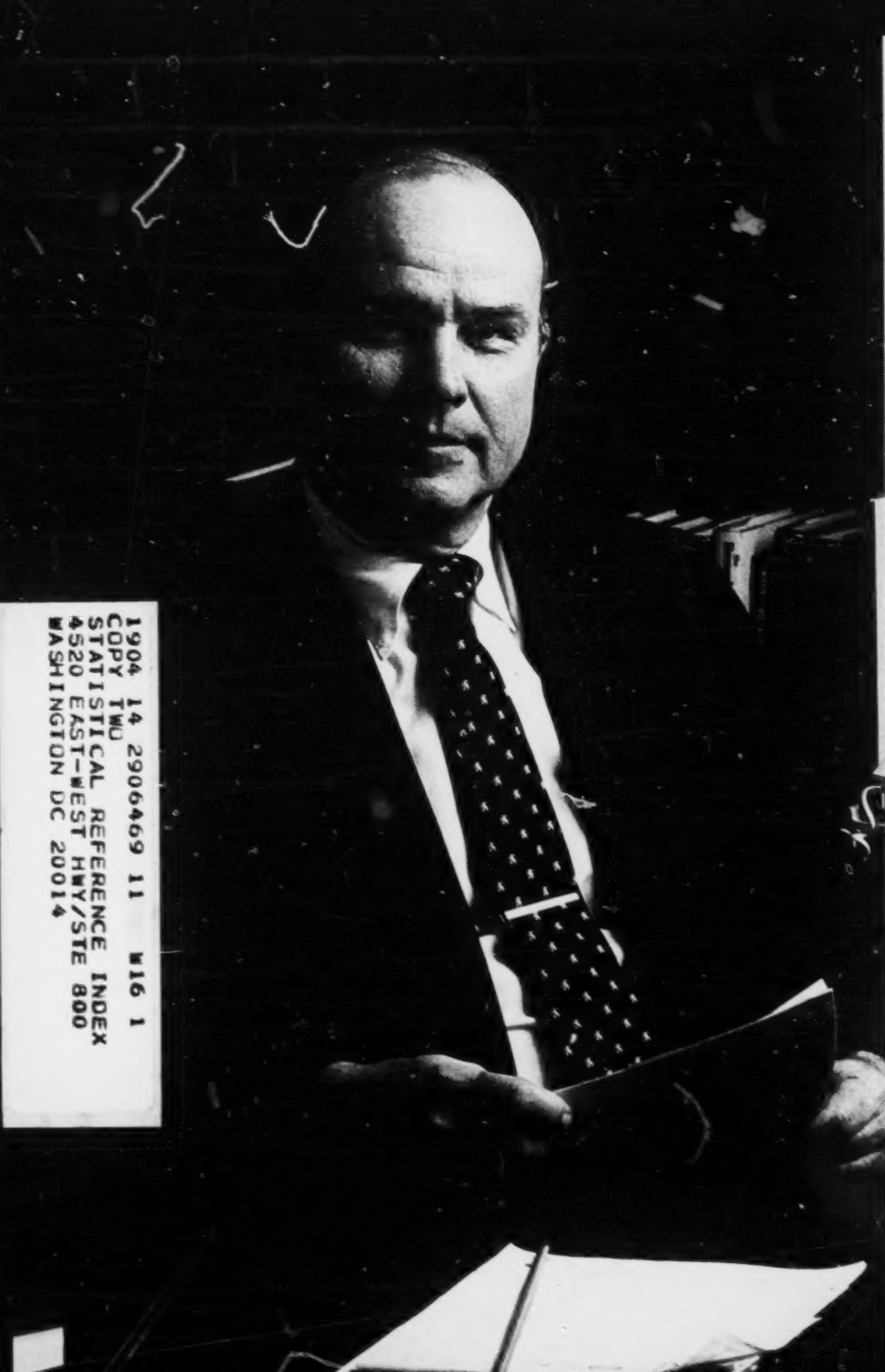
## Fuels

| Fuels | Latest price | Previous month | Year ago |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 22.00 | 22.00 | 28.50 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 33.30 | 33.30 | 40.00 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.915 | 0.955 | 0.918 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.950 | 0.983 | 1.010 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.973 | 0.983 | 0.977 |
| Heating oil, No. 4. N.Y., bulk, bbl. | 100.6 | 100.6 | 98.80 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 24.00 | 24.50 | 24.00 |
| 45 wt. diesel, Gulf, spot, gal. | 0.940 | 0.935 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.410 | 0.440 | 0.444 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

C8030-2

# Purchasing World®



1904 14 2906469 11 W16 1
COPY TWO
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Inventory paring** still has top priority among purchasing executives, a recent survey shows (p. 8).

**Steel discounts** should begin to narrow toward midyear, and some second-half increases seem inevitable (p. 10).

**Moderate price hikes** are expected to continue for most chemicals (p. 34).

***PW TechFile*** presents basic information on fluorescent lamps (p. 49).

**Prices** in general will climb again as demand begins to pick up in late spring or early summer (p. 102).

## Raytheon training program's a winner

—page 31

James M. Hill, Jr., as corporate director of procurement for Raytheon Co. shares an education success story. A recent study of his company's recruitment training program for purchasing professionals shows that effective management development is improving the odds in the competition for topnotch talent.

**PurchasingWorld**®

Vol. 26, No. 4 - April 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichard†**

Managing Editor
**Paul V. Farrell†**

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Art Director
**Richard Trefilek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **Inventory paring still high priority.** PMs will have to keep a wary eye on the overall business trend before making future commitments.

31 **Procurement training pays off.** The score is in on Raytheon's 12-year-old program—and the hits and runs far outweigh the errors.

34 **Buyers market continues for chemicals.** Price hikes for chemical and allied product industries will be moderate, as competition and over-capacity make for a continuing buyers market.

43 **Computer-assisted cost analysis has arrived.** New service offered by Data Resources Inc., aids PMs in negotiating and planning.

46 **Vendor guides should tell suppliers 'who, what, why, when, and where'.** Vendor representatives need more than a friendly 'hello' as buying and selling become more professional.

49 *PW TechFile:* **Fluorescent lamps.** Fluorescent lamps, in common use both in offices and plants, are among the most efficient sources of electric light.

50 **Is inhouse printing for you?** Speed and efficiency of new machines make captive printing facilities more attractive.

54 **The low-cost path out of the copier jungle.** Buyers have plenty of negotiating room in selecting copiers—if they know the hidden as well as the obvious costs.

56 **Lift trucks: Is leasing the answer?** Total lifetime costs should be weighed in the decision-making process.

## Around the purchasing world

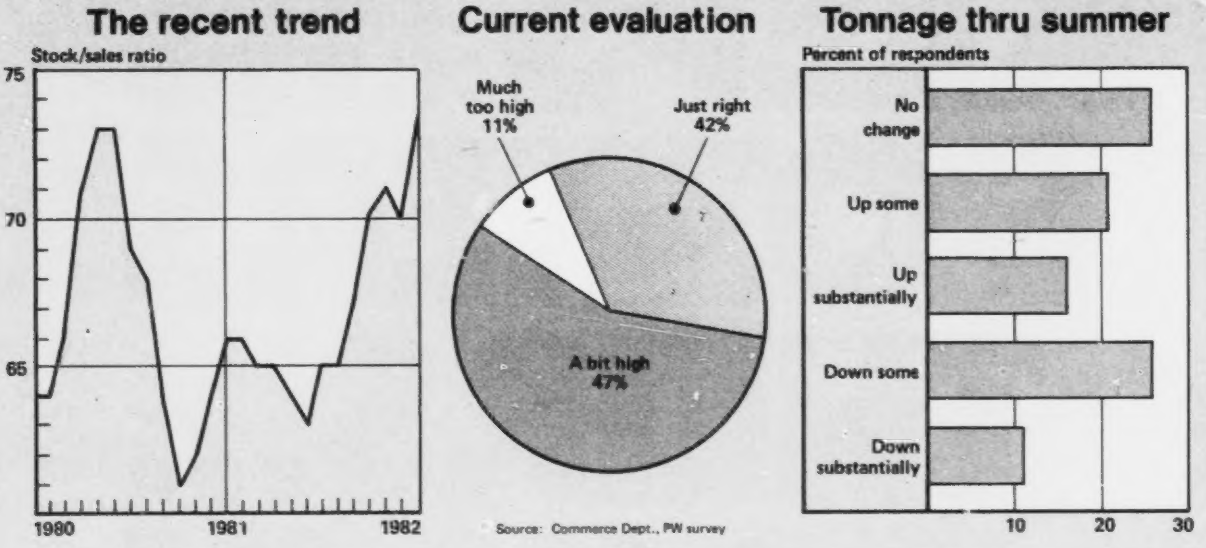
10 **_PW_ Predicts**
17 **_PurchasingWorld_ Perspective**
18 **Washington Perspective**
24 **Purchasing and the Law**
27 **Principles of Value Analysis**
28 **Effective Negotiating**
64 **SSCI Survey of Business Conditions***
66 **Product Information***
78 **NAPM Perspective**
80 **Labor Perspective**
84 **Transportation Briefing**
88 **Materials Management Close-up**
90 **Product Briefs**
102 **Price Perspective**
104 **Procurement Status Report**
106 **_PW_ Talent Pool**
110 **Latest Scrap Quotations**
112 **Business in Brief**
114 **Industrial Prices at a Glance**
116 **Raw Materials Price Barometer**

* Metalworking edition

ABP
BPA

*PurchasingWorld* (USPS 472-470) is published monthly by Technical Publishing, a company of the Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA1 3QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010.
©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, A Company of The Dun & Bradstreet Corporation—All Rights Reserved.
ISSN 0093-1659.

**Durable purchased-material inventories: Three views**



Source: Commerce Dept., PW survey

# Inventory paring still high priority

Inventories still remain too high for comfort, despite a concerted effort on the part of purchasing executives to cut back.

In the word of one purchasing executive replying to a nationwide ***PurchasingWorld*** survey, "Every time we make an inventory reduction move, production and sales fall even faster, making for an actual increase in our stock/sales ratio."

Official government measures of days' supply would seem to confirm this observation. To be sure, increases are no more precipitous than during the previous 1980 downturn (see chart). But recent advances seem to suggest that PMs will have to keep an eye on the overall business trend before making future commitments.

## Findings

Some of the specific findings of the just-completed study are:

■ **Current evaluation:** Nearly three out of evey five purchasing executives still feel their inventories are on the high side—though the majority of these same respondents characterize the excess as being relatively modest.

■ **Pinpointing the excesses:** The types of materials in excess supply cover the wide range of products purchased by industrial PMs, running all the way from basic metals (such as steel and aluminum) to castings, stampings, fasteners, and even MRO supplies.

■ **Days' supply trends:** Some 35% of the survey respondents say their holdings in terms of production needs are higher today than they were six months ago—considerably more than the 25% who say they've managed to effect some reduction. The remaining 40% note little change.

■ **Actual days' supply:** Holdings vary anywhere from under 30 days to more than three months. But on the average, they tend to hover around 45 days—not all that much out of line with historical levels.

■ **Future inventory changes:** Despite some imbalance, there will not be much of a change in overall tonnage holdings over the next six months, with as many PMs contemplating decreases.

Why are any increases planned? Some buyers say they see a business pickup long about summer and feel they will have to make some upward adjustments in stock levels to prepare for the pickup.

■ **Hedging against shortages:** This practice is virtually nonexistant as buyers report relatively fast deliveries and low supplier operating rates. Indeed, only one respondent admits to this kind of forward protection, and he blames a strike threat for the laying in of some mechanical parts.

■ **Price hedging:** Low prices and/or fears of future increases are still making for some scattered advance buying, with about 20% of responding purchasing executives noting such moves. The items generally involved are basic raw materials such as metals and plastics for which buyers believe prices have nowhere to go but up.

## Strategies

The relatively low hedging level would seem to highlight buyer determination to keep stocks within bounds. As one vice president of purchasing puts it: "With carrying charges in the 2-3% a month range (24-36% at annual rate), we just cannot afford to carry much more than bare minimum levels."

Other comments tend to support this type of caution. Another PM tells of committing for only about 75% of his needs, relying on spot purchases to fill in any holes. He admits this adds a bit to his overall procurement bill—but not nearly as much as if he played it safe and tied up additional working capital.

Some other strategies noted by purchasing managers to keep stocks down include better forecasting techniques, smaller order quantities (but with quantity breaks continuing), guaranteed delivery, blanket contracts, and new refinements to existing MRP systems. ***PW***

# PW Predicts...

**By Robert S. Reichard, prices, economics editor**

# Computers buck business decline

The economy may be going nowhere this year. But you'd never know it by looking at the rapidly growing $30 billion-plus computer industry.

Even after allowing for inflation, this sector is likely to sport a hefty 15% gain this year—actually a bit more than the 14% advance reported in 1981.

The new estimates, supplied by the U.S. Commerce Department, suggest strong gains in personal computers where less than 10% of the potential market in the business area has been tapped. Moreover, these same government spokesmen see good bargains—noting that continued price infighting can be expected on the basis of productivity advances, the economies of large-scale production, and rising imports.

On the latter score, Japanese inroads are now quite significant in the personal computer area, with U.S. imports from that nation in the year ending March 1982 are estimated at 30,000 units. Most of these are in the low end of the market—following the pattern set by the Japanese in other electronic products such as calculators, radios, and TV sets.

But whatever the source of price pressure, it's certainly having an impact on overall computer tags. Last year average industry quotes are estimated to have advanced by only about 4%. And judging from scattered cuts in recent months, the 1982 inflation factor may well be lower.

### Gasoline

Keep a weather eye out for price wars

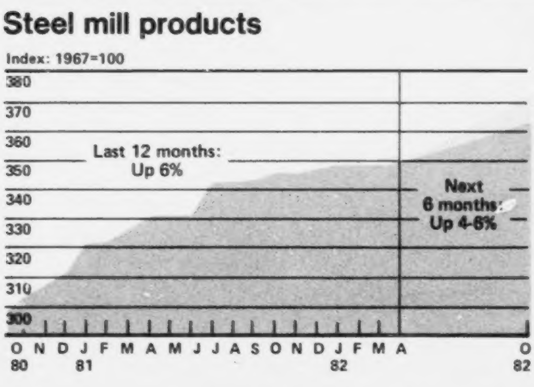
## Steel price scene

**CURRENT SITUATION: First quarter results have been disappointing**—with few signs of any significant pickup. All told, just a bit more than 18 million tons (only 75 million at annual rate) were shipped in the 3-month period. **Not surprisingly, prices remain weak, with plenty of discounts**—sometimes ranging as high as $50/ton—reported. Add in import competition, and it's highly unlikely that mills (despite a growing cost-price squeeze) will be able to effect a meaningful boost over the next few months.

**DEMAND: The industry still remains hopeful of a second half pickup—one which would bring overall 1982 shipments into the 88-90 million ton range.** Even so, that's not all that much better than the 87 million tons shipped in 1981. Consumption figures which include imports tell much the same story—with an expected 101-103 million ton total again close to last year's 101 million ton figure. **Some modest gains are seen for autos, drilling, and mining.** But declines loom for rail equipment, construction, farm machinery, and aircraft.

**SUPPLY: Clear sailing everywhere as operating rates remain well under preferred levels.** Imports, despite government moves to stem the tide, will also add to overall availability—with some 17 million tons expected to enter the country before the year is over. **The industry, however, continues to spend on plant and equipment**—with the $3.94 billion currently earmarked for 1982 modernization representing a hefty 26% boost over 1981 levels. It also suggests a 2-3% increase in production potential.

**PRICE OUTLOOK: Discounts should begin to narrow toward midyear.** And some fair-sized second-half increases in lists seem inevitable. But they'll be selective and quite modest—with steel mill product averages up only about 4-6% by autumn. Beyond that, look for some bigger increases as the economy begins to pick up steam and mills move to beef up margins. **By next year at this time, for example, prices could be running upwards of 10% above current levels.**

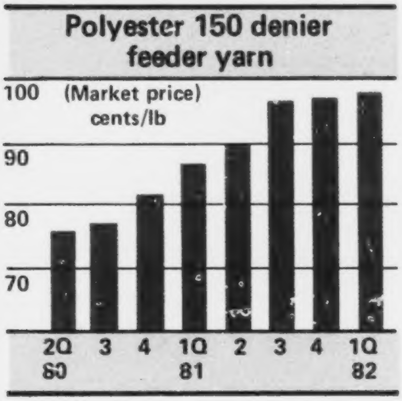


Steel mill products

as the oil glut continues. Even more significant—recent drops in spot crude (now $4-6/barrel off official lists) suggests further modest 2-4¢/gallon declines in gasoline averages on the pump level over the next few months. But some levelling off (and perhaps even a slight upward move) is likely by summer on a combination of a seasonal pickup in demand and new OPEC production cuts.

### Manmade fibers

Prices have weakened over the past month or so—as demand continues to disappoint and competition heats up. Some sample declines: nylon tricot yarns (off 5-10¢/lb into the $2.15-2.20/lb range), 150-denier polyester textile filament feeder yarn (off 6-8¢ into the 89-91¢/lb range), and rayon staple (off 1-2¢ into the 87-88¢/lb range). But some selective bouncebacks seem likely in the second half as demand slowly improves and cost pressures continue to mount.



### Trucking rates

Competitive pressures suggest that not all of the second-quarter rate hikes recently announced will hold. Transportation analysts say there's still considerable bargaining leverage to beat back or at least modify the 6-10% increases being posted on LTLs and the slightly smaller 1½-6% hikes on TLs. And for the year as a whole, these experts look for increases to average out only about 8% above 1981 levels.

### Aluminum

Bearishness is still the order of the day as dealer ingot goes for just over 50¢/lb (versus a 76¢/lb producer list)—with LME tags even lower. There's plenty of discounting on semifabricated products, too—and generous payment terms make for even bigger bargains. To be sure, low (under 70%) operating rates will help reduce the producer inventory overhang. But it will be slow—given current domestic shipment forecasts calling for only 14.0-14.3 billion lb in 1982 (not that much above last year and far under the 14.9 billion shipped as recently as 1979.

### Stainless steel

Buyers remain firmly in the saddle—with sheet products said to be generally going around 20% off list—though a few discounts are said to approach the 29% level. Some shaving in "extras" is also reported. Behind the easiness: excess capacity and disappointing demand. But some producers still remain cautiously optimistic about the second half, seeing modest gains at that time pushing total 1982 stainless shipments up to near 1.2 million tons—fractionally above the 1,163,000 tons of last year.

### Copper

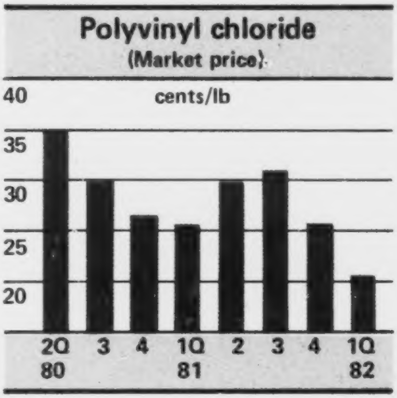
Count on bargains (under 80¢/lb) continuing through spring. But look for some advances by the second half as autos and construction slowly begin to pick up. Other factors suggesting higher prices over the longer run: (l) a cost-price squeeze which has pushed some producers into the red, (2) continuing mine cutbacks, and (3) relatively trim producer stocks. But any price rise should be slow at first—with the red metal unlikely to break the 90¢/lb barrier before late fall. Beyond that, some further hikes could be in the offing—with quotes likely to move into the $1/lb range by early 1983.

### Zinc

Prices have slipped in recent weeks—as competition between merchants and producers intensifies for limited tonnages. Other signs of weakness would have to include rising U.S. inventories and resumption of production at Ireland's Tara complex. In any event, it's hard to see prices going much, if anything, above 40¢/lb over the next few months. And even the longer term prognosis can hardly be described as bullish, as increasing use of Galvalume (which utilizes zinc) takes over many traditional galvanizing markets.

### Polyvinyl chloride

Markets are in complete disarray—with the latest erosion pushing volume purchases of the bellwether general-purpose homopolymer grade down into the 20-21¢/lb range. True, some producers may soon attempt to boost lists a bit in anticipation of some spring improvement in the construction industry. But with today's extremely low operating rates (put at only 70% for the year as a whole), these price hikes aren't likely to be all that successful. And more capacity continues to come on stream (another 800 million lb in 1982 and 1983 on top of the 1.2 million of the past year or so).



### Natural gas

More big hikes loom ahead as controls are gradually lifted. Best bet: about a 15-20% increase in 1982—a figure that's likely to make for new upward cost pressures in such consuming industries as steel, autos, textiles, glass, and containers. Some new Data Resources, Inc., forecasts tell the story: New and old gas price averages next year are put at $4.03/mcf and $1.14/mcf, respectively—gains of 44% and 18% over 1981 levels. And the big econometric forecasting firm sees similar hikes for both 1984 and 1985.

### Synthetic rubber

Prices remain depressed, with styrene-butadiene rubber (SBR) producers operating at under 60% of their potential.

The industry, meantime, says it needs a 4-5¢/lb increase in price to recoup recent cost increases. But any successful move along these lines seems doubtful until demand from Detroit begins to pick up—and that seems at least several months away.

### Fertilizers

Look for modest spring price advances despite relatively lackluster domestic demand, declining exports, and heavy producer stocks. Mid-May quotes, for example, should be in these ranges: anhydrous ammonia ($258/ton), urea ($255/ton), diammonium phosphate ($268/ton), superphosphate ($237/ton), and muriate of potash ($157/ton). These tags represent about a 2½-4% advance over late 1981 levels.

### Lead

Markets continue to back and fill in the 27-30¢/lb range—a figure that barely allows producers to recoup costs, and one that seems to assure red-ink operations for many secondary smelters. Nor is any nearterm pickup likely—as the winter battery-buying season ends, lead in gasoline continues to be phased out, and producer inventories mount. Domestic consumption for the year can hardly be termed bullish either, with totals likely to just equal last year's disappointing 1.25 million tons—a far cry from the 1.58 million that cleared the market in 1976 and 1977.

### Chromium

Weak demand is taking its toll. Buyers report imported high-carbon ferrochrome going for ½-1½¢/lb under the official 47½¢/lb list. And the easiness is likely to persist, with second quarter demand looking as bleak as the first three months. One sign of the times: South African producers are now operating at only 6% of their potential—far under the 75% level that prevailed through most of last year. ***PW***

## Textiles price scene

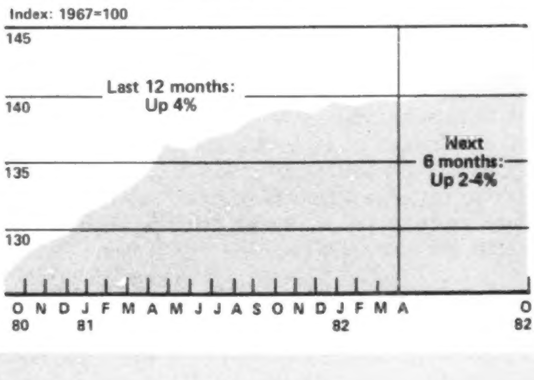
**CURRENT SITUATION: Consumer caution is playing havoc with the textile industry.** Mill output has slipped a hefty 10% since last summer, pushing operating rates in this sector down close to the 70% level. And many mills are now operating on shortened workweeks. Imports aren't helping matters either. Last year's incoming totals jumped 31% on a square-yard basis—with apparel imports (up 10%) further aggravating the situation. **Prices, meantime, have levelled, showing virtually no change since last fall.**

**DEMAND: The worst of the slide seems over. But 1982 still does not look all that great.** Many mill men would be willing to settle for a repeat of last year—particularly on the hard-hit corduroy, denim, and industrial fabric sectors. Carpet demand, too, leaves a lot to be desired as disappointing housing starts drop demand to the lowest level in years. One positive sign: The recent inking of a new multi-fiber agreement. **But just how effecive this is may well depend on successful negotiation of individual bilateral pacts.**

**SUPPLY: Today's more-than-ample mill capacity will persist through the year and into early 1983.** Indeed, mill operating rates will be lucky to move into the upper 70s range. **And the same is true on the fiber front.** Cotton looks to have a hefty 6.1-million-bale carryover this summer—more than twice the 2.7 million of a year earlier. And in manmades, nylon operating rates will only average in the 83% range. True, polyester will move into the 90%-plus range. But again there should be more than enough to go around.

**PRICE OUTLOOK: Any increases will be moderate.** Moreover,they will probably have to wait until the second half when tax cuts and some inventory rebuilding firm up demand. **Best bet: About a 2-4% increase in mill product averages by fall—and perhaps a 5% boost by yearend.** As for fibers—the cotton glut will keep the natural fiber near current low levels. And while some boosts in numbers (to recoup recent drops in nylon, polyester, and rayon) are likely, they will be selective—maybe 5-7% through yearend.

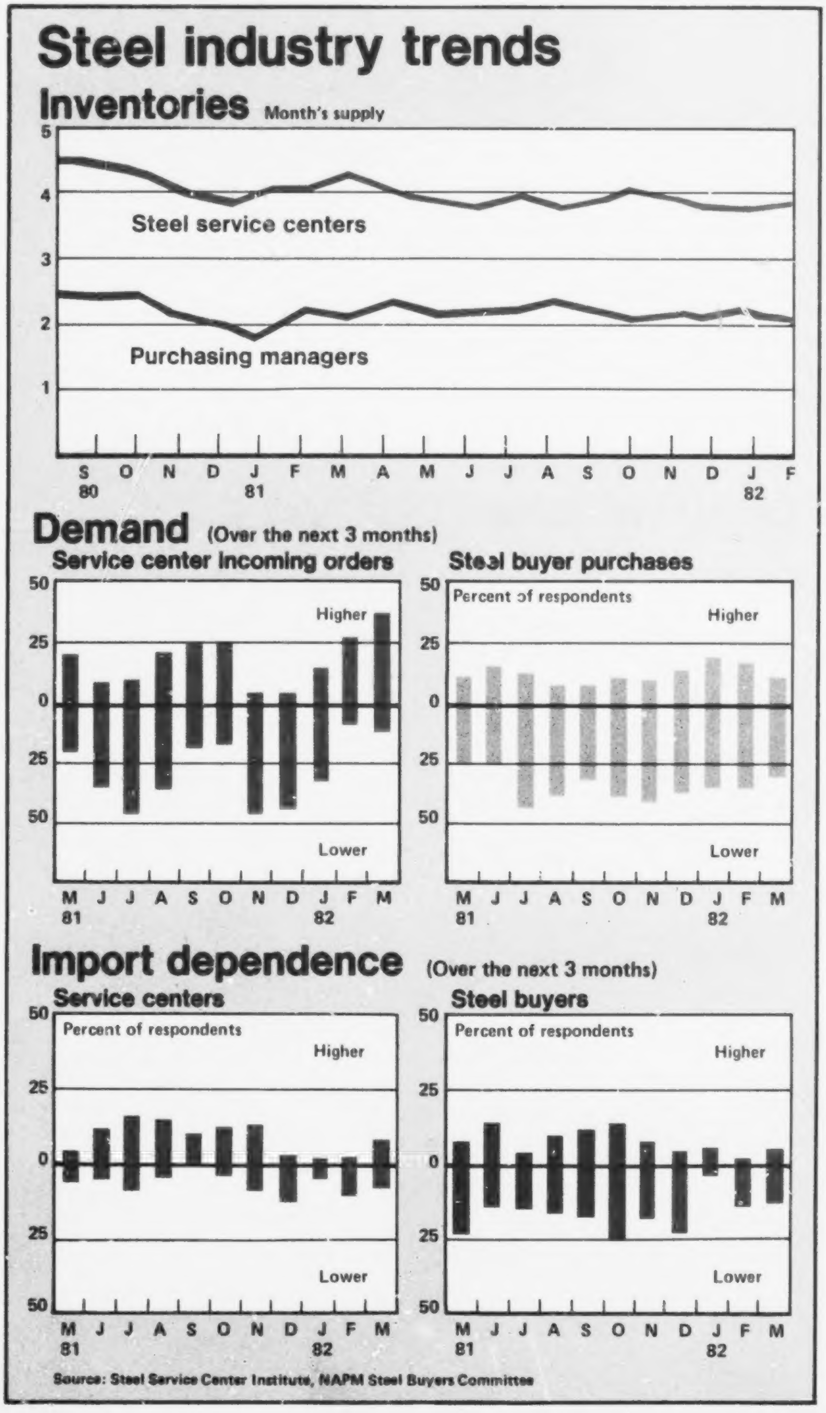
Textile mill products



# Mixed signals on steel buying

Buyers and service centers seem to be parting company when it comes to nearterm steel demand trends—with distributors tending to be somewhat bullish at a time buyers are still talking about continuing retrenchment.

Some 3% of surveyed service centers, for example, are now looking for an increase in incoming orders over the next three months—far outweighing the small 7% who are still bracing for more declines. It's the largest number voting for gains in over a year.



**Source: Steel Service Center Institute, NAPM Steel Buyers Committee**

The cautious optimism is being seconded by Andrew G. Sharkey, the Steel Service Center Institute president. As he puts it, "On balance, the outlook seems to be that business will indeed pick up again later this year."

The steel industry spokesman goes on to say that service centers are aware "that most metalworking companies have been living hand-to-mouth in terms of their metal requirements and, therefore, can be expected to start buying at a much faster rate than might normally be the case once the wheels of industry start turning again." .

But steel buyers aren't quite that optimistic. Indeed, a hefty 33% replying to a new NAPM survey say they will be cutting their incoming receipts of metal over the next three months That's more than double the 14% who are contemplating increases over the period.

One of the reasons for continuing buyer retrenchment may be their determination to keep inventories down. At latest report, they've managed to bring down their overall steel holdings to the low points of last year (to just over a two-month supply). And they say they mean to keep it there.

Service center inventories, meantime, seem to have stabilized at just under a four-month level. But here, too, there seems to be a determination to hold the line—with a hefty 63% saying they hope to make some further reductions in the months ahead.

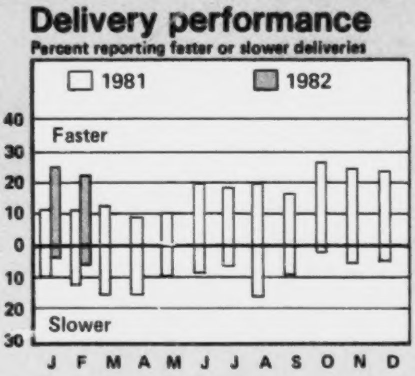
One reason for all this inventory caution (aside from today's high carrying costs) is the ready availability of virtually every product. Worth noting on this score: Not a single service center or steel buyer expects any item to be in short supply over the next few months.

Increasing imports will also be contributing to a more than ample supply as overseas bargains continue to attract metal to domestic markets. More than seven out of ten steel buyers, for example, say foreign mills now offer metal under comparable domestic levels—with 9% dubbing the differential as substantial.

Much the same story is being told by service centers. Some 31% now report carbon steel imports available at prices 10% or more under domestic levels—a major change from the 31% figure reported one month earlier. ***PW***

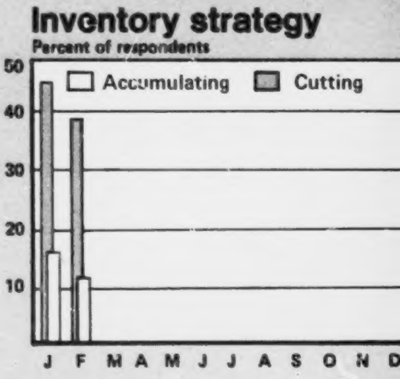
## PW monthly procurement status report

Source: NAPM



Delivery performance

Percent reporting faster or slower deliveries



Inventory strategy

Percent of respondents

# Sluggish business brings shorter leadtimes, smaller inventories

A still-sluggish economy would seem to virtually guarantee clear sailing.

To be sure, leads have not been narrowing all that much in recent months. But that's only because they are already pretty much at rock-bottom levels. A check of the items in ***PurchasingWorld's*** regularly monitored leadtime listing seems to confirm this trend. Note: (1) More than half the products listed are now sporting leads under those prevailing a year earlier, and (2) the latest "49" index reading marks the twelfth straight month of lower waits.

Other key indicators of an easy procurement climate:

- **Factory operating rates:** They now are averaging out at 70%—10 full points under year-earlier levels.
- **Vendor delivery performance:** PMs reporting faster delivery continue to outpace those who cite deterioration by a wide margin.
- **Inventory retrenchment:** No obvious buyer worries as parers still outpace accumulators by a significant margin. A detailed PW survey (see page 8) further confirms the trend.
- **Items in short supply:** There are only two now—bearings and caustic soda—with the latter due more to poor demand from chlorine rather than to any capacity constraints. ***PW***

## Leadtimes and availability

**Chicago:** Aluminum angle, bar, and extrusion waits are down to 4-8 weeks. Also lower are softwood plywood (to 1), plyform (to 2), pigments (to ½-1), electrical materials (to 1), and valves and fittings (to 1). But some boosts are noted for batteries (12-14), coils (8-12), printed circuit boards (12-14), and ICs (14-18).

**Cleveland:** Coil coating paint is out a bit—to 3-4 weeks. But slightly reduced waits are noted for polyethylene (2), PVC (2), and cold-finished aluminum (10). Unchanged are corrugated (3), steel canisters (6), wirebound shocks (8), alloying materials (on demand), glassines and greaseproof papers (4-5), and skids (3).

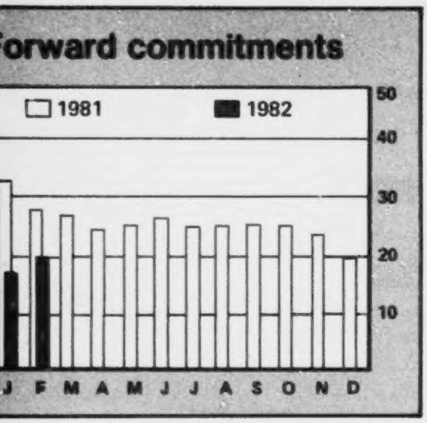
**Houston:** Some reductions in wire and cable—from 4-8 months down to 4-6 months. Shop fabricated pipe is also in—to 2-6 months for carbon types and 3-8 for alloy types. Ditto, cast steel valves (1500-2500 psi and up) where waits are now only 8-13 months. Behind the fall: less demand from the oil equipment market.

**Los Angeles:** Somewhat reduced leads (in weeks) are noted for grey iron castings (3-4), brass castings (4-6), pumps (8-10), and points (4). But a few extensions, too—in natural rubber (to 13), heavy aluminum sheet (26), large valves (39), and ship paint (20). Unchanged are galvanized steel (7), and fasteners (4-5).

**Philadelphia:** Electronic parts are in—to 10-12 weeks for linear ICs and to 10 on TTL ICs. Buyers say overall electronic leads are the best ever—trending down for 2 years now. Other typical leads they note: tantalum capacitors (8), resistors (off the shelf), power transformers (12), and potentionmeters (8).

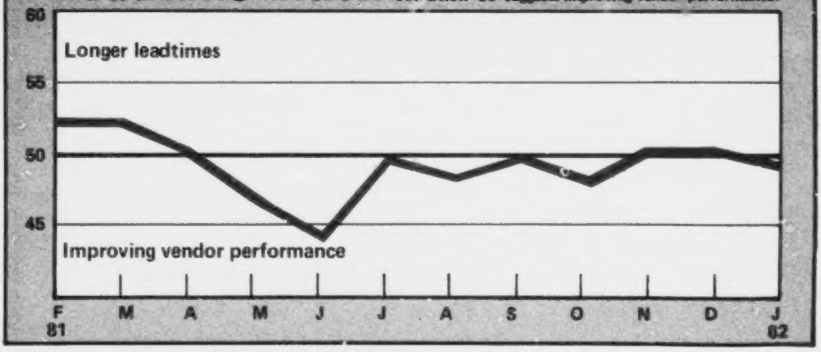
**Pittsburgh:** No appreciable changes here. Typical leads (in weeks): kraft bags (4-6), plastic bags (3-4), corrugated (3-4), standard steel drums (2-3), glassines and greaseproof papers (5-6), bleached kraft paper (4-6), lumber (2-4), steel strapping (2-3), polyethylene and PVC (4), maintenance paint (5), and plastic film (2-4).

orward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 5½ |
| Plate (Phil) | 5 | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 8½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 7 | 11 |
| Galvanized (Chgo) | 4½ | 4½ | 5½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 30 |
| Tubing (Phil) | 10 | 10 | 10 |
| Grey Iron Castings(LA) | 3½ | 4 | 4 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 10½ |
| Capacitors (Chgo) | 13 | 11 | 7 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 9 | 9 |
| ICs (Linear) (Phil) | 11 | 12 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 13 | 10 | 6 |
| Relays (Chgo) | 15 | 12 | 12 |
| Resistors (Chgo) | 12 | 12 | 10 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 1 | 2 | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | I/5 | I/5 | I/5 |
| Sortwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 7 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 7 |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 1½ | 1½ | ½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 4 | 5 | 4½ |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3½ |
| Paint, Maint. (Clev) | 2 | 2 | 4 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2½ | 2½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 2 |
| PVC Resin (Pgh) | 4 | 4 | 3 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

## Paper

| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

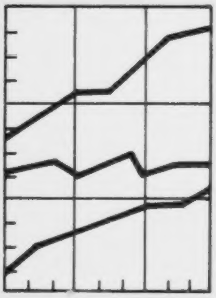
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 8 |
| Aluminum Plate (Chgo) | 7 | 7 | 8 |
| Aluminum Sheet (LA) | 12 | 12 | 11 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 4½ | 5½ | 7 |
| Brass Rods (Chgo) | 2½ | 2½ | 10 |
| Brass Sheet (Chgo) | 5 | 5 | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 6 | 6 | 7 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 6 | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 6 | 6 | 7 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 4½ | 4½ | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 4I |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 5 | 7 |
| Machined Parts (Hous) | 12 | 12 | 12 |
| Pipes & Valves (Chgo) | I | 3 | ½ |
| Pumps (Hous) | 4I | 4I | 4I |
| Pumps (LA) | 9 | 10 | 11 |
| Rubber, Synthetic (LA) | 1½ | 1½ | 2 |
| Rubber Hose (LA) | 7 | 7 | 6½ |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 17 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

# Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 84.00 | 91.00 | 106.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 71.00 | 78.00 | 104.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.61 | 0.64 | 0.73 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.545 | 0.575 | 0.630 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.57 | 0.60 | 0.69 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.360 | 0.350 | 0.395 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.280 | 0.265 | 0.345 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.290 | 0.280 | 0.395 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.14 | 0.14 | 0.14 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.15 | 0.19 | 0.21 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 8.00 | 9.00 | 15.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 7.00 | 7.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2. dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.080 | 0.080 | 0.145 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.14 | 0.14 | 0.36 |

# Inflation eases worldwide

The inflation outlook is beginning to improve over all of the industrial Free World.

New Organization for Economic Cooperation and Development (OECD) figures suggest lower rates of increase in inflation for the United States, Europe, and the Far East—with deceleration from last year ranging anywhere from one-half to three-and-one-half percentage points.

The new forecasts in ascending order of inflation (1982 versus 1981): Germany (4.0% versus 5.5%), Japan (4.8% versus 5.5%), United States (7.3% versus 10.3%), United Kingdom (9.3% versus 11.3%), Canada (10.8% versus 12.3%), France (11.5% versus 12.8%), and Italy (16.8% versus 20.5%).

But the improvement is coming only at the expense of sluggish economic growth. Indeed, in the case of the United States, OECD sees real GNP actually declining this year by about one-half of a percent. And while most other countries will still manage to end up in the plus column, increases for the most part will be modest. Only Japan will manage to come up with a respectable (4%) real-growth figure.

All this, in turn, also suggests high, or even rising, unemployment (again, except for Japan where the figure is put at a low 2%). For the United States, the jobless estimate is close to 9%—with only England turning in a sorrier performance. ***PW***

# Switch to disposables cuts wiping costs

Replacing shop towels with reusable, disposable wipers could lead to a $10,000-a-year saving in wiping costs, according to executives at Fisher Controls Co.

The company tested various types of wipers in the machine shop of its Marshalltown, Iowa, operation. The shop was chosen for the experiment because it had the widest variety of wiper use—in machining operations, final inspection, and maintenance.

In the trials, a bonded cellulose wiper was reported to be twice as absorbent as a 100% cotton cloth, and to hold three times as much water as a rag made of synthetic materials. The wiper was Scott Paper Co.'s Wypall.

Some initial worker resistance to the switch to disposables was experienced when further tests were held in other areas of the plant. But it faded, supervisory personnel reported, when the workers recognized the advantages in the new wipers.

Part of the resistance, according to Jim Adair of Fisher's corporate purchasing department, was due to the common misconception of a disposable as a throwaway item that is not as good as something more lasting. But reusable disposables, he points out, can be rinsed after each shift, dried, and used again. ***PW***

# Be wary of labor cost impact

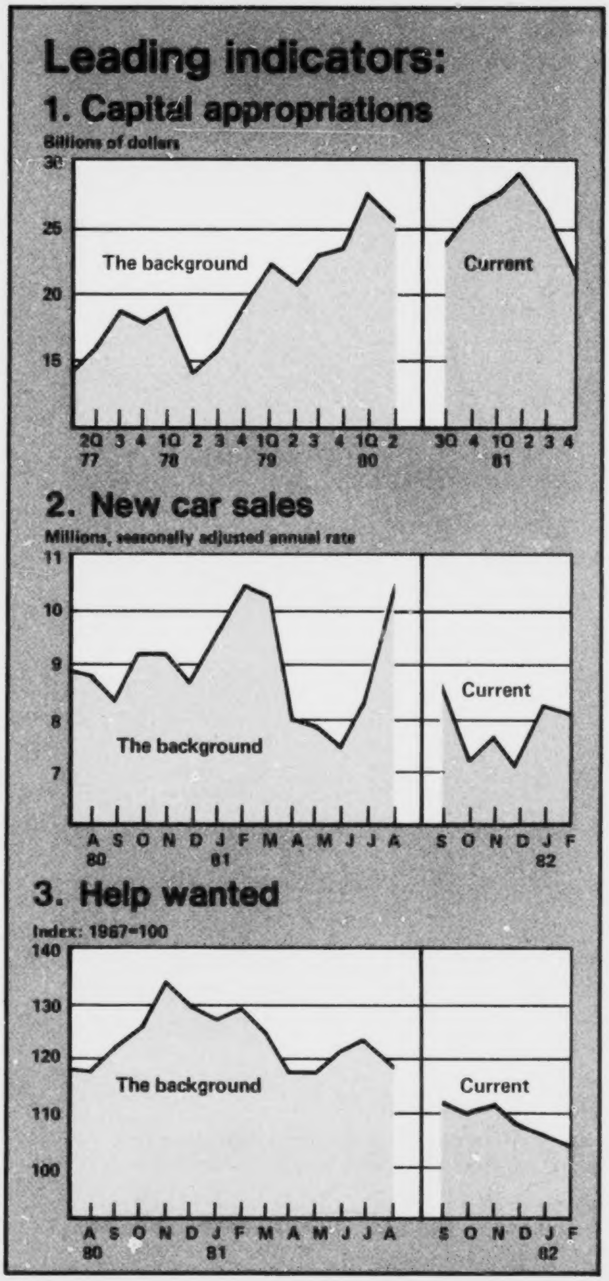
Don't rely on national averages when trying to assess the impact of wage increases on any given product price.

That's the implication of a recent Standard and Poor's survey that shows wide variation in the labor cost contribution. The share ranges from a low of 5.3% in the capital-intensive oil industry to a high of 59.7% in the labor-intensive trucking sector.

A partial listing of industries with relatively high labor costs (aside from trucking) includes steel (35.8%), aerospace (34.7%), electrical and electronic products (34.2%), communications (34.0%), office equipment (33.2%), machinery (32.7%).

Those industries with low labor ratios (aside from oil) include food processing (17.3%), beverages (19.4%), chemicals (22.0%), and paper (23.6%).

One encouraging sign: The labor share in a few industries has been trending down over the past four years, with these percentage-point declines noted: chemicals (2.7), communications (5.3), nonferrous metals (2.7), office equipment (7.8), and paper (3.2). Going the other way were machinery (up 1.9) and trucking (up 5.5). ***PW***


**Leading indicators:**

**1. Capital appropriations**

Billions of dollars

**2. New car sales**

Millions, seasonally adjusted annual rate

**3. Help wanted**

Index: 1967=100

**Business in brief:**

# Indicators show delayed pickup

The long-awaited economic recovery looks to be delayed a few more months. Blame it all on a combination of continuing high interest rates, consumer and business caution, and the huge budget deficit looming ahead.

But whatever the reason, the harbingers of nearterm activity still leave quite a lot to be desired. New durable goods orders, for example, while showing signs of bottoming out, aren't nearly strong enough to fuel any significant spring production pickup.

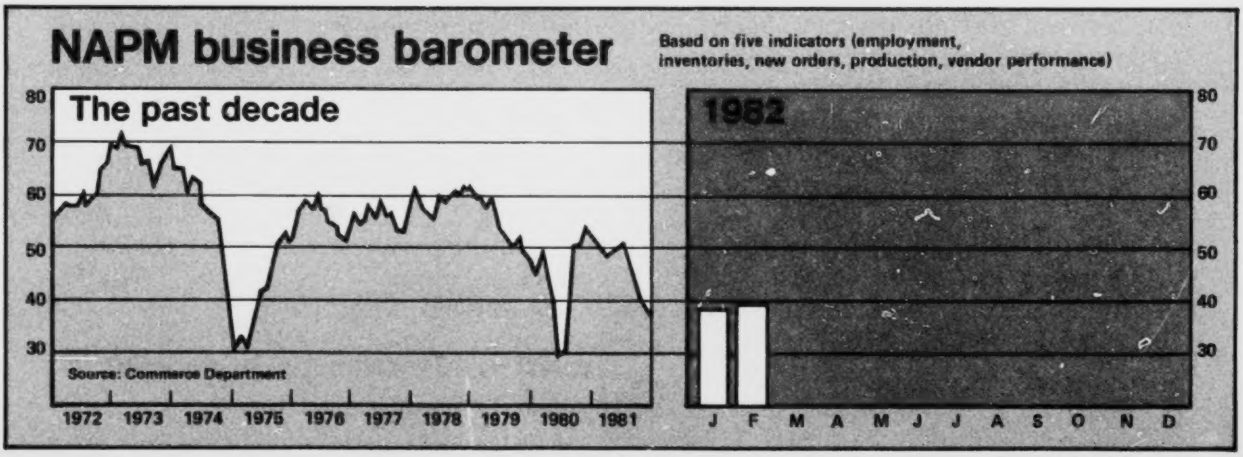
Leading business indicators tell much the same story. Uncle Sam's barometer of future activity, for example, continues to edge lower. And while the more sensitive NAPM yardstick (see chart) has turned around, it remains well under the neutral "50" mark—a level above which the economy can be considered to be ready to expand.

One thing for sure, the hoped-for pickup in capital spending is still nowhere in sight. Capital appropriations (a lead indicator of spending a few quarters into the future) dropped a strong 15% over the latest reported quarter—the biggest decline in some seven years (top chart). But there is a ray of hope. The Conference Board, compiler of these figures, remains hopeful for a turnaround—projecting about a 10% advance for 1982 as a whole.

New car sales also remain far from bullish—with year-to-date figures (including imports) averaging out at only 8 million units on a seasonally-adjusted annual rate. The industry will be hard put to make good on its earlier prediction for a 9-million-plus unit year.

Help-wanted numbers (bottom chart) also seem to confirm the current lackluster business outlook. The index of job opportunities dropped slightly again over the past few months.

What does it all add up to? It would be unrealistic to expect anything more than a stable or even slightly declining GNP figure for the current (second) quarter. True, odds still favor a second-half pickup, but it's likely to be quite modest—with real GNP for the year as a whole still falling a bit short of last year. ***PW***


**NAPM business barometer**

Based on five indicators (employment, inventories, new orders, production, vendor performance)

Source: Commerce Department

# More price drops reported

Inflationary pressures continue to abate, with industrial wholesale price averages moving up at a 6%-or-under annual rate.

Upshot: Most product groups are now safely in the single-digit price increase range vis a vis a year ago (see table). There's even a scattering of "no changes" and actual declines reported over the past few months.

Much of the improvement can be traced back to refined petroleum products. And the inflationary lull here is expected to continue as a lingering crude oil glut keeps prices edging even lower in the months ahead.

Shaky raw material tags are also contributing to the current price pause. Most plastic resins and nonferrous metals, for example, are now at or under year-earlier levels.

More importantly, such signs as low demand and 70% operating rates suggest more of the same ahead. So does the latest NAPM business survey report, which shows more buyers experiencing price declines than increases.

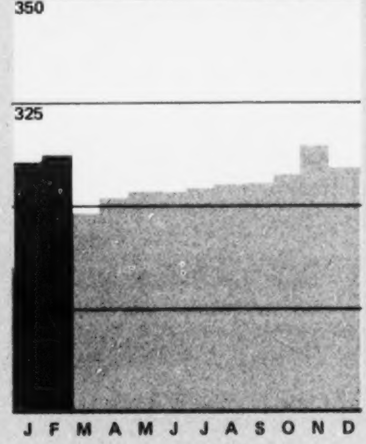
That's the first time this has happened in some seven years. And if past history is any indicator, this will show up in official government price indexes later this spring. ***PW***

## Industrial prices at a glance

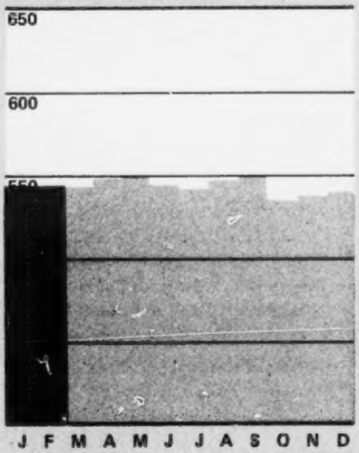
1981 ▨ 1982 ■

### All items

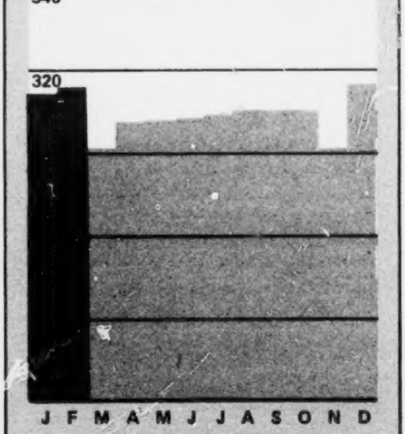
Index: 1967 = 100



### Raw materials



### Semifabs, components



Source: Bureau of Labor Statistics

## This month's breakdown

| | Latest level (Feb.) | Percent change from: Month ago | Year ago |
|---|---|---|---|
| Bearings | 322.0 | 0.1 | 9.8 |
| Bolts, nuts, etc. | 271.7 | 0.7 | 5.4 |
| Chemicals, inorganic | 312.6 | 1.8 | 11.7 |
| Chemicals, organic | 387.1 | –1.2 | –0.2 |
| Concrete products | 295.6 | 0.3 | 3.1 |
| Cutting tools, small | 273.3 | 1.5 | 10.6 |
| Electrical instruments | N.A. | N.A. | N.A. |
| Electric lamps (bulbs) | 279.6 | 1.6 | 5.7 |
| Fans and blowers | 333.8 | 0 | 7.6 |
| Fittings, industrial | 304.1 | 0 | 2.7 |
| Foundry and forge products | 344.3 | 0.7 | 6.6 |
| Fuel oil (residual) | 1188.9 | –3.4 | –4.7 |
| Furniture, commercial | 271.6 | 1.9 | 7.9 |
| Gasoline | 700.4 | –1.9 | 2.2 |
| Glass, flat | 216.1 | 0 | 5.8 |
| Glass containers | 349.6 | 4.5 | 12.3 |
| Gypsum products | 255.0 | 1.8 | –0.9 |
| Hand tools | 328.8 | 0.7 | 8.3 |
| Hand tools, power driven | 218.8 | 0.1 | 5.2 |
| Industrial furnaces | 342.2 | 0.3 | 6.4 |
| Integrating and measuring instruments | 208.8 | 0.9 | 9.5 |
| Internal combustion engines | 317.9 | 0.3 | 9.3 |
| Lubricating oil | 888.1 | 0 | 6.2 |
| Lumber millwork | 278.4 | 0.6 | 1.7 |
| Material handling equipment | 287.6 | 0.5 | 8.1 |
| Metal containers | 325.4 | 0.6 | 3.7 |
| Metal mill shapes (nonferrous) | 304.7 | –0.1 | 2.3 |
| Metal tanks | 312.7 | 0.2 | 5.3 |
| Motors and generators | 310.0 | 0.2 | 7.7 |
| Motor trucks | 267.1 | –4.5 | 4.8 |
| Office and store equipment | 150.3 | 0.7 | 3.1 |
| Paperboard | 261.4 | 0.7 | 3.4 |
| Paper boxes and shipping containers | 251.1 | 0.5 | 7.1 |
| Paper office supplies | 222.0 | 1.2 | 5.2 |
| Paint | 259.3 | 0 | 5.2 |
| Plastic resins | 295.9 | 0.7 | 7.2 |
| Precision measuring tools | 235.3 | 0 | 7.7 |
| Pumps and compressors | 345.2 | 1.1 | 10.3 |
| Refractories | 330.9 | 4.9 | 12.7 |
| Rubber belts and belting | 321.7 | –0.1 | 15.1 |
| Scales and balances | 224.4 | 0.2 | 2.6 |
| Steel products | 349.2 | –0.1 | 6.7 |
| Switchgear | 255.7 | 0.2 | 3.5 |
| Textiles, synthetic fibers | 164.1 | 0.2 | 11.6 |
| Textiles, gray fabrics | 147.4 | –0.6 | 2.4 |
| Tires and tubes | 259.6 | 1.2 | 6.6 |
| Transformers and power regulators | 221.1 | 0.9 | 13.9 |
| Valves, industrial | 326.8 | 0.5 | 7.0 |
| Welding equipment | 271.4 | 0 | 6.6 |
| Wire and cable | 206.4 | –0.1 | –0.6 |

# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 203.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 203.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt. | 23.40 | 23.40 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt. | 31.00 | 29.20 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 23.25 | 21.50 |
| Steel, plates, Pitts., cwt. | 24.25 | 23.25 | 21.50 |
| Steel, plates, H.R., Pitts., cwt. | 20.80 | 20.80 | 19.50 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 23.15 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 28.85 |
| Steel, basic wire, Pitts., cwt. | 23.65 | 23.65 | 22.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.19 | 1.20 | 1.25 |
| Brass, yellow, [sheet], lb. | 1.13 | 1.14 | 1.19 |
| Cadmium, ton lots, lb. | 1.40 | 1.40 | 2.00 |
| Copper, electrolytic, wire bars, refd., lb. | 0.77 | 0.78 | 0.83 |
| Copper sheet, over 24 in., lb. | 1.28 | 1.29 | 1.34 |
| Lead, common, N.Y., lb. | 0.27 | .30 | .34 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 380.00 | 375.00 | 390.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.70 |
| Nickel, electrolytic, producer, lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 7.80 | 8.04 | 11.52 |
| Tin, Straights, N.Y., lb. | 6.70 | 7.72 | 6.96 |
| Zinc, Prime West, East St. Louis, lb. | 0.410 | 0.420 | 0.410 |
| Zinc, die casting alloy, No. 3, lb. | 0.475 | 0.485 | 0.470 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.445 | 0.445 | 0.395 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 195.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.52 | 1.51 | 1.89 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.710 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.345 | 0.345 | 0.345 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.420 | 0.420 | 0.350 |
| Polyethylene resin, high-pressure molding, carlots, lb. | 0.45 | 0.45 | 0.45 |
| Polypropylene, G-P injection molding, lb., railcar shipment | 0.40 | 0.40 | 0.36 |
| Polystyrene, G-P crystals, bulk railcar, lb. | 0.41 | 0.41 | 0.46 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Sytrene monomer, 99.6%, tanks, lb. | 0.375 | 0.375 | 0.370 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots lb. | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal. | 1.45 | 1.48 | 1.43 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 375.00 | 375.00 | 375.00 |
| Offset paper, No. 1 Grade | 49.70 | 45.50 | 40.55 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 270.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 310.16 | 313.91 | 332.58 |
| Lumber 2x2, pine, mbf, cl | 283.17 | 293.63 | 295.67 |
| Plywood, plyform, 3/4", msf, cl | 581.60 | 577.00 | 597.58 |
| Plywood, 5/8", msf, cl | 333.64 | 340.24 | 360.74 |
| Cement, bulk, ton, tl | 62.23 | 63.13 | 59.18 |
| Sand, ton, cl | 5.98 | 5.98 | 5.99 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.42 | 45.42 | 43.66 |
| Crushed stone, 1½", ton, cl | 7.69 | 7.69 | 7.49 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.73 | 0.73 | 0.67 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 154.68 | 154.68 | 144.88 |
| Brick, common, per thousand, tl | 172.85 | 169.30 | 155.77 |
| Asphalt paving, AC-20 | 167.13 | 168.68 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.70 | 6.70 | 6.40 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y. yd. | 0.232 | 0.239 | 0.274 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.00 | 1.00 | 1.05 |
| Cotton middling, 1", N.Y., lb. | 0.612 | 0.591 | 0.830 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | 0.70 | 0.71 | 0.71 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.87 | 1.67 |
| Blended printcloth, 64", 78x54, yd. | 0.70 | 0.72 | 0.77 |
| 20s combed yarns | 1.73 | 1.73 | 1.88 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.50 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.59 | 0.59 | 0.51 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.473 | 0.473 | 0.660 |

## Fuels

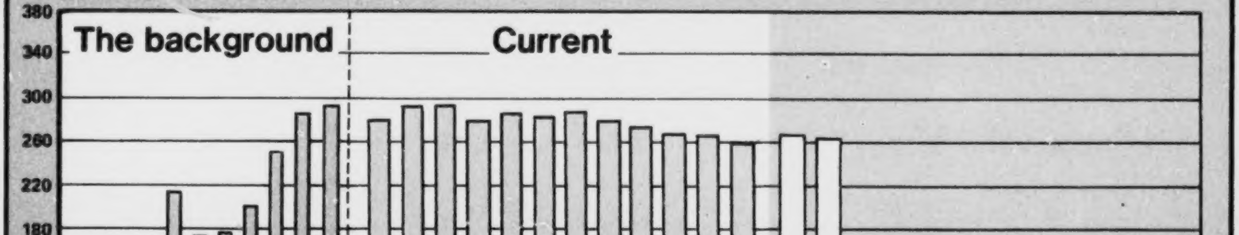
| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 22.50 | 22.00 | 27.50 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 33.30 | 33.30 | 40.00 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.913 | 0.913 | 0.988 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.894 | 0.950 | 1.065 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.860 | 0.973 | 1.020 |
| Heating oil, No. 2, N.Y., bulk, bbl. | 92.60 | 100.60 | 105.80 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 23.75 | 24.00 | 25.00 |
| Jet kero, Gulf, spot, gal. | 0.900 | 0.940 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.410 | 0.410 | 0.454 |

[Sources: Metals Week. Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

## PW raw material price barometer

**Latest month 262.8**
**Month before 264.2**
**Year ago 284.2**

Index: 1967 = 100



C8650-2

May 1982

# PurchasingWorld®

1905 14 2906451 11 W16 1
COPY ONE
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Import buying** will increase this year, according to a new survey of purchasing executives (p. 8).

**NAPM president** for 1982-83 George Milne sets priorities on communications and professional development (p. 43).

**GNP growth** expectations for 1982 have been adjusted downward, but 1983 and 1984 look strong (p. 44).

**Industrial demand** will be up in almost all major areas by yearend, U.S. Commerce Dept. says (p. 56).

## Shape up suppliers with vendor analysis

**—page 30**

Frequent plant visits help Fran Petro, manager of purchasing for Stanley-Vidmar, Allentown, Pa., evaluate the performance of current and potential suppliers. Here, she discusses the butcher-block tops her company sells for its shop cabinets with supplier Jim Reichart, plant manager of Bally Block Co. For more ideas, turn to our article on expecting more and getting more from suppliers.

**PurchasingWorld**®
Vol. 26, No. 5 - May 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichardt†**

Managing Editor
**Paul V. Farrell†**

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Art Director
**Richard Trefilek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **PMs find bargains in foreign markets.** Nationwide survey reveals purchasing managers are buying in international markets for greater purchasing power.

30 **Expect more, get more from suppliers.** Purchasing managers are dusting off and updating basic evaluation and selection techniques to bring suppliers into line.

43 **'We have to communicate'.** The PM has to have the ability to communicate with other departments, and know their needs and concerns, according to George R.A. Milne, CPM, president-elect of the NAPM.

44 **Expect less inflation, slow growth through 1984.** Zero in on the industrial production indicator, and the currently anticipated 1982 decline is near a significant 5%.

48 **Boston Gear: On the road to paperless purchasing.** At Boston Gear, the computer will soon eliminate much of the paper involved in purchasing—including the PO itself.

51 *PW TechFile:* **The types of valves.** Here's a rundown on the five basic types of valves commonly used in industry: ball, butterfly, check, gate, and globe.

56 **Major industries will end year with rising demands.** Commerce Department study suggests that almost all major areas will end up in the plus column as far as real demand is concerned.

## Around the purchasing world

10 ***PW* Predicts**
17 ***PurchasingWorld* Perspective**
18 **Washington Perspective**
24 **Purchasing and the Law**
26 **Principles of Value Analysis**
28 **Effective Negotiating**
80 **NAPM Perspective**
82 **Materials Management Close-up**
84 **Transportation Briefing**
86 **Price Perspective**
88 **SSCI Survey of Business Conditions**
92 **Product Information**
104 **Freight Newsbriefs**
106 ***PW* Talent Pool**
110 **Procurement Status Report**
114 **Latest Scrap Quotations**
116 **Business in Brief**
118 **Industrial Prices at a Glance**
120 **Raw Materials Price Barometer**

ABP
BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. ©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of the Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659.

# PMs find bargains in foreign markets

The purchasing spotlight is squarely on imports these days—with not even the 1981-82 business downturn dimming buyer interest.

Last year, for example, the physical volume of incoming shipments jumped by nearly 10% (see chart). And judging from purchasing managers' responses to a new ***PurchasingWorld*** survey, the same type of gain may well be in store for the current year.

In the words of one Midwestern purchasing executive, "in today's competitive markets we have to buy where costs are lowest—and in more cases than not, that's usually somewhere overseas."

He and others feel that poor demand in many foreign countries' domestic markets has helped make for some of today's bargain-basement offerings—with an added assist coming from a strong U.S. dollar. (Other things being equal, a dollar with high international purchasing power tends to reduce the landed cost for American buyers.)

## Major trends

Some of the more specific findings of the just-completed survey:

■ **Recent import price trends:** About half of the respondents say that import prices on average have remained level or even declined a bit over the past year. Only one out of five reports increases in excess of 5% over this period. And where increases have been noted, some 63% say they were less than those experienced on comparable domestic product lines.

■ **Extent of the price advantage:** One out of every four importing PMs say that items they import yield savings in excess of 20%. And three out of five net savings of at least 10%.

■ **Best bargains:** The long list includes such key industrial products as fasteners, bearings, castings, forgings, carbon steel, stainless steel, aluminum products, brass mill products, galvanized wire, lumber, electronic components, compressors, plastics, optics, and even some machine tools.

■ **The exchange rate impact:** Some 31% of the responding PMs say the strong U.S. dollar has played a significant role in keeping foreign prices down for the American buyer-with an equal number saying that exchange rates were a contributing factor.

■ **Overseas marketing efforts:** Foreign sellers seem to be stepping up their drive to penetrate the lucrative U.S. market. The pertinent survey figures here: Some 30% of the respondents report a major increse in overseas selling efforts. And another 38% say there has been at least some moderate acceleration in foreign promotion and solicitations.

■ **1982 import volume:** A surprising 54% see an increase in their incoming tonnage over the current year. That compares to the only 6% who expect to cut back and the 40% who see relatively little change. Also worth noting: Several say they are looking into areas where up to now they have done little or no importing.

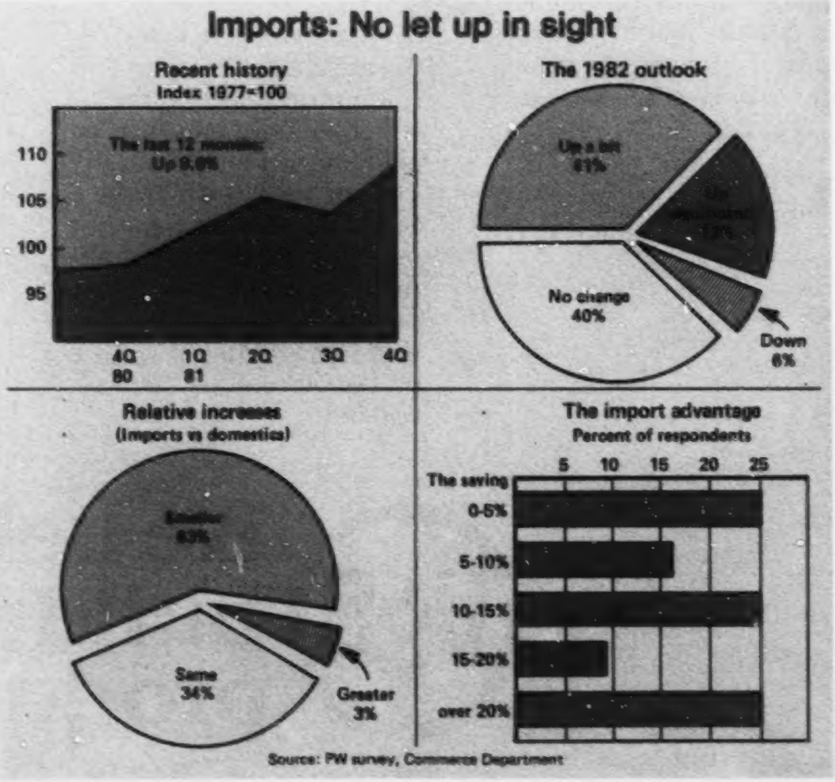
## Reasons for foreign shopping

Another interesting finding: For many purchasing managers, quality rather than price is a crucial reason for shopping outside the country. Indeed, roughly one of three says this was a major determinant in their decision to import. More than a few add that the foreign material is often superior to the domestic alternative.

Other reasons cited for going the import route: (l) unavailability of the product here in the U.S., (2) fast deliveries, (3) good servicing, and (4) tie-ins with foreign subsidiaries. On the latter score, one firm tells of an agreement with one of its German divisions which permits the purchasing manager to buy at "cost plus 10%."

Then, too, several respondents openly admit they use imports or the threat of imports as a lever to secure concessions from domestic suppliers. One steel buyer, for example, says, "I doubt whether we'd be getting current $50/ton-and-higher discounts were it not for the import situation."

A few thoughtful purchasing people, however, view all the emphasis on imports as a mixed blessing. As one vice-president of procurement sums it up, "We still try to reserve the lion's share of our orders for domestic suppliers—not only for patriotic reasons, but because in the long run when the chips are down these are the poeple we will have to depend on." ***PW***



Imports: No let up in sight

Source: PW survey, Commerce Department

# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Bargains abound for plastic resins

Disappointing demand (particularly in the key auto and construction sectors—combined with substantial overcapacity—is continuing to make for some spectacular bargains in the plastic resin area.

A *PW* spotcheck of major commodity resins suggests that most formulations are now selling well under official producer lists. Discounts are especially large in ABS where the 95c-$1.00/lb list (for injection molding, high-impact material) is nowhere near the 75c/lb current market price. But shopping around can also result in considerable savings for some of the other workhorse resins, including low and high-density polyethylene, polypropylene, polystyrene, and polyvinyl chloride.

It's no coincidence that all these materials are plagued with extremely low operating rates. Indeed, even if you factor in some second-half pickup, not one of these resins is likely to achieve even an 80% utilization rate for 1982 as a whole. And in the case of some—notably polystyrene, PVC, and ABS—rates are likely to average well under the 70% level.

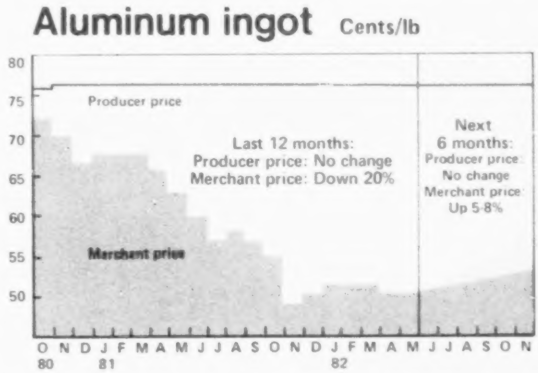
On the other hand, by yearend or early 1983, some improvement is anticipated here—as demand slowly picks up and projected capacity additions are either postponed or dropped entirely.

This improvement, in turn, suggests more and more price-boosting attempts as the industry moves to recoup recently absorbed costs. But it may not be until next spring or summer before the price peaks of early 1981 can be reattained.

## Aluminum price scene

**CURRENT SITUATION: All signs point to a continuing buyers' market.** U.S. merchant ingot, for example, remains near the 50c/lb mark—with producers offering the metal for only a few cents more (far under the 76c/lb list). And much the same is true of semi fabricated lines where lists are only the starting point for negotiation. **Still-rising stocks are another factor to reckon with**—with Free World holdings put at above 5 million tons. Also on the bearish side: **Sagging new orders which in early 1982 were off some 20%.**

**DEMAND: The industry would now be glad to settle for last year when some 6.7 million tons cleared the market.** About the only bright spot is packaging, where a 2-4% advance is possible. But construction will show little gain. Ditto, transportation, as downsizing offsets increased emphasis on aluminum parts. And shipments to the electrical and machinery sectors could be off fractionally. So will exports. **Even longterm growth projections have been pared—with the new rate put in the relatively low 3-4% range.**


Aluminum ingot Cents/lb

**SUPPLY: Low operating rates tell the story.** Domestic primary producers are now down near 67% of their potential. And secondary ingot makers have dropped down into the 50% range. Given the current inventory overhang and the only modest late 1982-83 growth trend currently projected, these operating rates are likely to remain low. **Indeed, for the Free World as a whole, little more than an 80% rate is seen for 1983**—as the fair-sized demand gain seen for that year is partially offset by a few more percentage points of new capacity.

**PRICE OUTLOOK: Discounting (including generous credit terms) is almost a sure bet to continue nearterm—though some modest narrowing is likely by fall.** But any quick bounceback to list levels is still nowhere in sight. To be sure, energy and other costs continue to rise. But market forces will continue to call the tune. As such, the 80/lb and higher ingot quotes that had been bandied about as late as last summer may now have to wait until mid-1983—and maybe even longer than that if money rates stay high.

### Steel

All signs point to continued easiness—with the industry now putting a moratorium on new list hikes in flat rolled products through the end of the year. More significantly, sharp discounting persists in most product lines, with average shading in sheet products put in the 10-20% range. And even previously strong oil-country tube may be in for a fall—as inventories build up and demand slows down. Imports, accounting for upwards of 20% of U.S. consumption, aren't helping matters either. As for shipments: 1982 estimates have been downgraded again—with most figures centering around 80 million tons.

### Copper

No sign of any pickup here. Indeed, poor demand has forced one large producer to shut down completely for at least six weeks. All told, the domestic industry is operating at only 55-60% of its potential. But with South American and African producers still turning the metal out at a near-record rate, don't expect any significant nearterm price recovery. In fact, it may not be until next year that prices begin to approach the 95¢/lb level that the average U.S. producer says is needed to break even.

### Machine tools

Bargains are beginning to crop up as demand sags to the lowest level in years. On the domestic front, for example, producers are said to be shading tags on big specialty items. And this could well start to spread if recent reports of Japanese discounting are anywhere near correct. On the latter score, industry sources contacted at the recent Westec show in Los Angeles said some Nipponese products were being shaved as much as 10% in an effort to reduce inventories and increase market penetration.

### Lead

Markets are shakier than ever—with little sign of any upturn from current low-to-mid-20s levels. It could mean a rash of bankruptcies for secondary producers unless things bounce back fairly soon. The only bullish sign: renewed Russian buying (some 30,000 metric tons in the first quarter). But that isn't really enough to turn the tide as inventories continue to climb and Free World consumption shows little or no gain from last year when global use was off about 3%.

### Sulphur

Hard times are spreading to even sulphur, a workhorse chemical that up until a few months ago had been able to buck the general deflationary trend. Sign of the times: Hit by weak fertilizer demand, producers are beginning to shade tags—primarily by offering customers easier credit terms. Some buyers are reportedly being given up to 120 days to pay—up substantially from the traditional 30 days. Some good buys are also said to be available in recovered Mexican sulphur—as South-of-the-border producers dis-

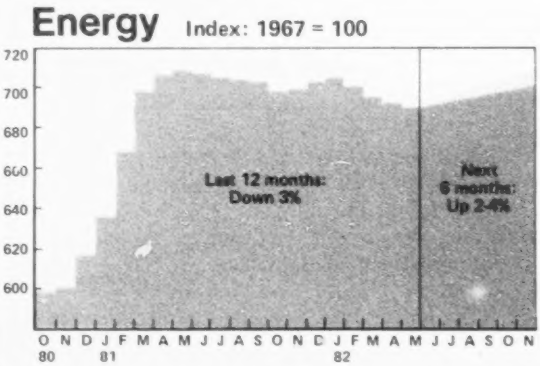
## Energy price scene

**CURRENT SITUATION: Energy tags are taking a breather.** Indeed, overall averages have actually declined (by about 3%) over the past year—a dramatic turnaround from the huge 23% advance racked up during the previous 12 months. **But not all areas have fared equally well.** The big relief, of course, has come in petroleum where a huge oil glut has actually pushed tags down. On the other hand, other energy sectors have continued to advance—with these increases noted over the past year: bituminous coal (10%), electric power (13%), and natural gas (21%).

**DEMAND: A fractional drop in overall domestic energy use is seen for 1982** (probably something in the order of 1%) on a combination of continuing conservation and the lackluster business situation. It would mark the third straight year of falloff—following the bigger 3½% and 2½% declines of 1980 and 1981, respectively. **Again oil will lead the way**—with about a 3-4% falloff projected. Little change is seen for natural gas. On the other hand, **2½% and 4% gains seem likely for coal and nuclear energy, respectively.**

**SUPPLY: No problems anywhere—given the low demand projections and assuming no new Mideast blowup.** In the case of oil, for example, it may take another 6-9 months (even with production cutbacks) to bring markets back into balance. Coal is in a similar situation—as 1982's estimated output of 880 million tons tops combined domestic use and exports by about 12 million tons. **No sweat on natural gas. And most utilities have enough generating capacity to cover all demands** (including the maintenance of an adequate reserve).

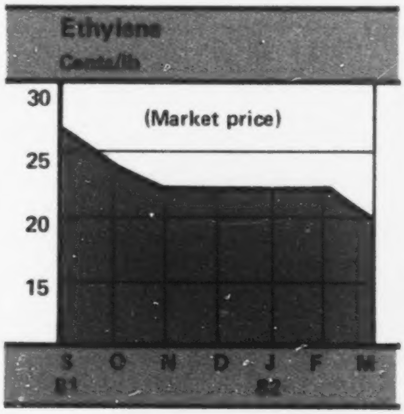
**PRICE OUTLOOK: Don't expect the current lull to continue—though boosts over the next 6-12 months will be relatively modest.** Refined oil products may well edge up again—though increases will be restrained as the U.S. acquisition cost of foreign crude remains under last year's $37/bbl peak. Elsewhere, price hikes will be substantial—though again under the rates of recent years. **Best bets for 1982: natural gas up 15-17% and electricity up 10-12%.**



count their prices to move growing stocks of above-ground material.

### Ethylene

Still more erosion here, with quotes on some volume orders dropping down to near 18¢/lb—well under the 22½-25½¢/lb quotes of earlier this year.



Behind the dip: sagging demand. As of now, the industry looks to ship only 26 billion lb in 1982—some 2 billion under earlier estimates and 3 billion under 1981 levels. On the other hand, coproduct propylene remains relatively firm in the 24-26¢/lb range. Thus, some erosion here, too, can't be ruled out over the next few months.

### Chlor-alkalies

Off-list chlorine prices are beginning to move up—though it is doubtful by as much as the $20/ton announced by major producers. Best bet: A boost of about $5-10/ton which would still leave tags on volume purchases only in the $85-100/ton range—well under the official $135-150/ton list level. Market quotes on caustic soda, meantime, remain firm in the $215-230/ton range (again for volume purchases), with a further advance by midyear likely as supplies begin to tighten up again.

### Zinc

Hard hit by the slumping auto and construction industries, prices have dropped from the 40¢/lb level of a few months back all the way down into the mid-30s. Adding to overall weakness are rising producer stocks and less die casting use per car (22.7 lb on the average 1982 vehicle—down 6% from 1981 and an eye-opening 4% from levels prevailing as recently as 1976). Nor is any quick bounceback anticipated. Indeed, even if you factor in a modest general business recovery, prices are likely to remain under the 40¢/lb level through summer and fall—and perhaps even into early next year.

### Telephone rates

Get set for some hefty hikes (on a combination of deregulation and inflation). One recent government report suggests about a 76% overall advance over the next four years. And if you operate out of predominantly rural areas, the boost could be bigger than that. All in all, the report puts the average monthly consumer bill up at near $16 by early 1986 (versus only $9.16 currently). One possible source of relief: the legislation that has already been introduced in Congress to hold down the rate of rise.

### Lumber

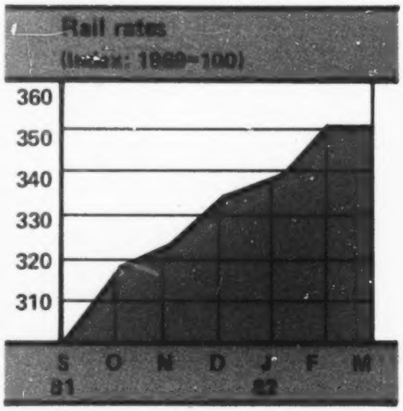
Sagging construction continues to make for easy prices—with softwood running under yearago levels in 17 of 20 surveyed cities. And one estimate puts average tags a hefty 35% under 1980 peaks. But look for some nearterm bottoming out on a combination of seasonal factors, mill production cutbacks (output is down 35% from 1978-80 averages) and inventory liquidation. On the other hand, no sustained recovery is possible until mortgage rates drop at least 2-3%—and that still seems a long ways off.

### Tungsten

Weakness is the order of the day here, too—with free market ore prices recently tumbling to a six-year low. Behind the softness: A fall-off in demand from the steel industry. Even tungsten carbide demand is beginning to soften in line with recent drilling cutbacks. Another bearish factor: the increasing availability of Chinese metal. And while the Chinese are now having some second thoughts about this, it would be unrealistic to expect any more stabilizing of the market near current low levels.

### Rail rates

Good nearterm news here. The industry's basic tariffs will remain unchanged through the second quarter.



Reason: Costs have temporarily stopped rising. In fact, over the latest three-month period, they actually declined 2%. But most forecasts suggest some modest cost increases again by the second half—probably enough to push average rail rates up about 2-4% by yearend.

### Synthetic fibers

Nylon textile filament has weakened a bit—with reports of purchases only in the $2/lb range. That's some 10-12¢/lb off recent levels and reflects poor demand in warp knot markets. Rayon staple is none too firm either. This other key manmade fiber moves for as little as 35¢/lb. That's some 4¢/lb under end-of-1981 levels and reflects a combination of excessive print cloth inventories and increasing competition from low-priced cotton. ***PW***

## Econometric forecast:

# Expect less inflation, slow growth through 1984

What a difference just a few months can make.

When Data Resources, Inc., (DRI) came up with 1982 forecasts late last fall, the big econometric consulting firm felt that the nation would manage to take out a small 0.4% gain in real GNP (erroneously reported in January as 9.4%). But it looks as though growth will be off a full percentage point—a sharp contrast to last year's 2% advance.

Zero in on the more volatile industrial production indicator, and the currently anticipated 1982 decline is even more significant—near 5%. That's a major dropoff compared to 1981's near-2.5% advance.

But there's some good news to go along with the bad. A recovery is expected to get under way around midyear, aided by a 10% reduction in personal tax rates. This, in turn, can be expected to spur consumer spending. And as sales pick up, business should be able to reduce its still excessive inventories.

To be sure, interest rates will keep any overall advance to relatively modest proportions. But by 1983, real GNP gains are expected to be up in the respectable 4% range (not that much under the Administration's official 5% estimate). And industrial output is expected to rise by 9%.

Equally significant, inflation estimates have been toned down substantially. If nothing else, the recession has had a further dampening impact on the 1982 price picture—reducing the projected increase in industrial producer quotes this year from 6.7% to only 4.7%.

However, the relief could prove temporary, as a recovery later on (in 1983 and 1984) adds upward pressure in sensitive raw materials areas and even in some of today's sluggish, more highly fabricated sectors.

### Important factors

Spurring the moderating price trend along is the good food situation and a better-than-previously-anticipated energy outlook.

On the latter score, DRI's current forecasts for 2nd quarter 1982 actually put processed fuels and lubricants some 3% under year-earlier levels. And while the figure here is expected to accelerate, all signs suggest it will remain in the single digit-range.

An improving labor cost picture also has to be regarded as an overall plus in reducing price pressures. Specifically, reduced pay hikes (aided by some wage freezes and even a few rollbacks) are expected to hold 1983 unit labor cost increases to a relatively subdued 5%.

Thus, it's not all that surprising that DRI inflation rates projected for both this year and 1983 (GNP deflator basis) have been reduced about two percentage points under the 1980-81 experience.

The following year (1984) doesn't look all that bad, either. In fact, the Lexington-based consulting firm projects these macroeconomic (big picture) advances: real GNP (3.7%), industrial production (5.7%), GNP deflator (6.6%), industrial prices (8.8%), and consumer prices (6.8%).

In short, DRI is cautiously optimistic through its nearterm forecast period (from early 1982 through the end of 1984).

The individual materials and product-line price trends shape up along these lines:

### Energy

■ **Petroleum:** It is not expected that OPEC price escalation will keep up with U.S inflation through 1983, thus implying a decline in real prices. Indeed, the U.S. refiners' average acquisition price for foreign crude oil this year is projected to average $34.50/barrel, down 6.8% from 1981's $37.00 level. Moreover, foreign crude oil prices are expected to escalate by only 3.1% in 1983.

■ **Natural gas:** Strong escalation is projected because of continuing gradual decontrol. As such, prices will reach parity with residual fuel oil by 1985. Year-by-year escalation estimates: 13.8% this year, 16.5% next year, and 15.0% in 1984.

■ **Electricity:** Much less relief is seen here than in oil—with annual rates of increases put at 13.0%, 9.8%, and 9.6% for 1982, 1983, and 1984, respectively.

### Metals

■ **Steel mill products:** A gradual acceleration in the rate of price rise is forecast here as demand improves and mills move to recoup previously absorbed cost increases. As such, by next year at this time, averages (as monitored by Uncle Sam's official producer price index) could be running close to 11% above current levels.

■ **Ferrous foundries:** Price easiness should persist a few more quarters. But some acceleration is inevitable later—so that for the forecast period (through the end of 1984) DRI looks for compound annual rates (CARs) of increase of about 7.6% and 10.0% for gray iron foundries and standard malleable castings.

■ **Aluminum:** Strengthening demand from the auto, construction, and machinery sectors should mean firming prices by late this year. And in 1983 and 1984, quarterly increases of close to 4% for ingot seem quite likely.

■ **Copper:** Some sharp increases following the depressed levels of the past year or so are unavoidable. As such, quarterly cathode increases from late this year through 1984 are expected to average near 3.9%.

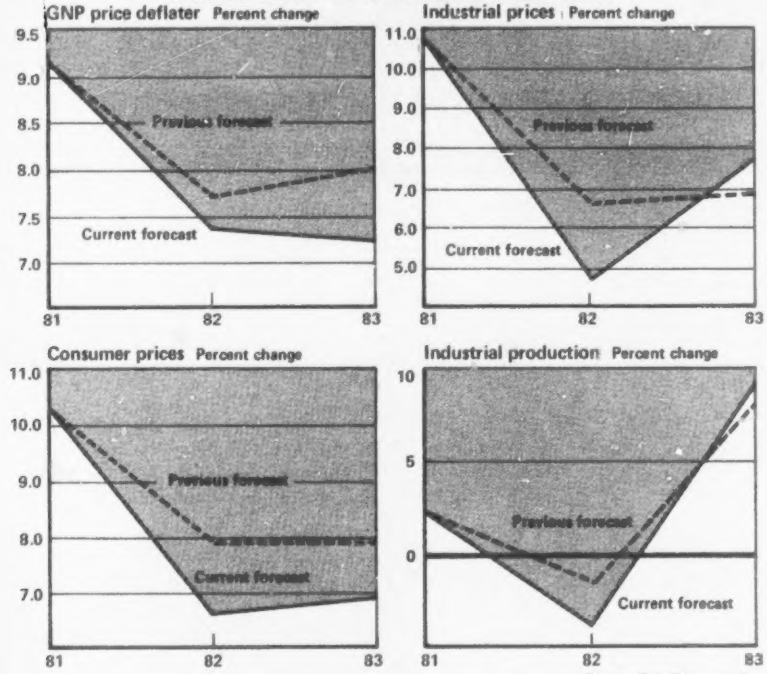
■ **Lead:** Current weakness (prices in recent weeks have been under 30¢/lb) should give way to some fairly hefty increases—especially when autos begin to pick up. Indeed, over the 1982-84 forecast span, prices are targeted to move up at a strong 8.6% CAR.

■ **Titanium:** A pickup in military spending should help reverse the current price erosion. And for the forecast period as a whole, a CAR of about 10.5%$ is currently being projected.

■ **Nickel:** Rising demand from the steel industry suggests a substantial price pickup from currently discounted levels in both 1983 and 1984—with

## The changing scene

### Revised outlook shows recessions effects



Source: Data Resources, Inc.

## Where prices are headed*

| | Year-to-year second-quarter comparison | | | |
|---|---|---|---|---|
| | 1981/80 | 1982/81 | 1983/82 | 1984/83 |
| **Raw Materials, energy** | | | | |
| Supplies for manufacturing | 9.2% | 6.0% | 8.5% | 8.7% |
| Chemical products | 18.2 | −0.1 | 8.4 | 7.4 |
| Paint materials | 9.2 | 7.2 | 8.8 | 10.0 |
| Processed fuels and lubricants | 21.8 | −3.0 | 6.9 | 9.9 |
| **Metals** | | | | |
| Domestic copper | −10.7% | 0.4% | 19.3% | 13.9% |
| Copper base scrap | 5.9 | −11.6 | 23.4 | 13.8 |
| Aluminum shapes | 9.8 | 5.7 | 11.1 | 11.4 |
| Wire and cable | 4.7 | 1.1 | 13.8 | 11.6 |
| Galvanized steel sheet | 10.5 | 4.4 | 9.8 | 9.6 |
| Steel mill products | 8.8 | 7.0 | 10.8 | 11.1 |
| Foundry and forge products | 6.2 | 8.3 | 10.3 | 9.5 |
| Structural steel shapes | 12.5 | 5.4 | 10.4 | 10.4 |
| **Components** | | | | |
| Hardware | 8.6% | 6.3% | 9.3% | 7.2% |
| Electronic instruments | 5.1 | 3.6 | 6.4 | 6.9 |
| Bearings | 11.2 | 12.1 | 8.6 | 10.1 |
| Unwatermarked bond No. 4 | 6.6 | 4.7 | 6.8 | 7.6 |
| Digital MOS ICs | −9.2 | −8.9 | 5.9 | 3.1 |
| Electronic components | 7.1 | 5.7 | 4.5 | 4.4 |
| Electric motors | 9.5 | 6.6 | 9.9 | 10.3 |
| **Construction materials** | | | | |
| Plastic construction products | 1.2% | −0.6% | 9.1% | 10.5% |
| Bituminous paving materials | 22.9 | −2.9 | 8.0 | 12.5 |
| Concrete products | 6.2 | 2.8 | 5.9 | 9.9 |
| Structural products | 9.3 | 4.0 | 4.2 | 7.8 |
| **Equipment** | | | | |
| Switchgear and switchboards | 6.3% | 3.4% | 7.9% | 8.6% |
| Metal-cutting machine tools | 9.6 | 7.8 | 8.6 | 11.2 |
| Mining machinery | 8.9 | 8.7 | 12.4 | 12.8 |
| Construction equipment | 11.4 | 7.6 | 8.2 | 9.8 |
| Motor trucks | 15.3 | 4.2 | 10.3 | 9.4 |
| Heating equipment | 8.5 | 5.5 | 6.4 | 6.6 |
| Pumps and compressors | 12.5 | 8.9 | 8.7 | 11.0 |

*Selected from more than 200 wage and price forecasts which are updated quarterly.
Source: Data Resources, Inc., Cost Forecasting Service.

quarterly increases over this period expected to average about 2.6%.

### Metal products

- **Fasteners:** Intense competition should limit the CAR advance to 8.3% over the 1982-84 forecast period.
- **Valves and fittings:** Continuing snug supplies assure some healthy increases. And while quarterly boosts over the forecast may vary from 1.4% all the way up to 3.9%, the CAR of increase could be in excess of 11%.
- **Bearings:** Rising demand from the transportation industry will spearhead a price pickup here. Best bet: an 8.6% increase over the next four quarters—with an even larger 10.1% advance projected from the second quarter next year to the second quarter 1984.
- **Machine tools:** Gradual acceleration is projected for metal-cutting types—with increases, which averaged out at only 7.8% over the past four quarters, coming to 8.6% over the next four quarters and 11.2% from the second quarter 1983 to the second quarter 1984.

### Other products

- **Industrial chemicals:** Improving economic activity could mean a big 9.7% average advance in 1983—far above the 0.3% gain projected for the current year. And an even larger 10.0% boost is seen for 1984.
- **Rubber products:** Belts are targeted for a 7.9% CAR over the forecast period—with miscellaneous rubber products coming in at a slightly lower 6.6% CAR.
- **Construction materials:** A look at the accompanying table shows how the construction slump has affected prices. A few representative CARs for the forecast period: metal doors, sashes, and trim (8.7%); structural metal products (5.5%); insulation board (9.1%); insulation materials (8.4%); concrete culvert pipe (7.9%).
- **Switchboards and switchgear:** Hikes will intensify as transportation markets rebound. The expected average annual increase for 1983 and 1984: something in the 8.5% range.
- **Electronic components:** More-than-ample capacity, plus technological advances, will keep nearterm price increases in the low, 4-6% average annual range. Capacitors should be at the upper end of the price spectrum (with a 9.8% CAR), while other items like digital bipolar ICs will show only a small, 3.3% CAR. ***PW***

## 1982 industrial outlook:

# Major industries will end year with rising demands

Uncle Sam's economists are still betting on a tolerably good year—despite the rather dismal first quarter.

At least that's the implication of the Commerce Department's new "1982 Industrial Outlook." This detailed 443-page study, covering predictions for some 200 industries, suggests that almost all major areas will end up in the plus column as far as real demand is concerned (see table for an industry-by-industry rundown).

As usual, government spokesmen are loathe to predict specific prices. But a few such forecasts have crept into the analyses. Comparisons of current dollar and constant dollar forecasts suggest these 1982 price increases: Glass containers (8%), metal cans (7%), lumber mill products (4%), tools and dies (9%), foundry equipment (8%), and aerospace products (7%).

In addition, these 1981 average price estimates are given for key nonferrous metals: copper (90-95¢/lb), lead (mid-30s range) and zinc (mid-40s range).

### Key factors

The new study also provides some interesting observations on so-called fast-growth industries—including (1) projected rates of growth and (2) the various factors accounting for rapid advances.

On the latter score, new product development plays a major role—with this factor noted as a significant contributor in three-fourths of all the rapidly growing industries. Other key contributing factors (all detailed in the accompanying table) include substitution, expanding exports, energy needs, and less-than-average price increases.

This price factor can also be demonstrated by looking at past history. The average annual increase in growth industries over the 1972-79 period came to only 6.5%—some 2.4 percentage points under the 8.9% average annual increase noted for all manufacturing.

This moderation can, in large part, be traced back to bigger-than-average productivity gains. Here again the figures tell the story—with productivity for the typical growth industry put at 4.2% a year over the 1972-79 period—nearly double the 2.6% figure noted for all manufacturing.

### Major industries

Coming back to the current year, here's a more detailed industry-by-industry rundown on how Washington sees things shaping up. Projections are based on about a 1.4% real GNP ad-

## 1982 Demand forecasts: an industry-by-industry rundown

| Industry | % change | Industry | % change |
|---|---|---|---|
| Construction | + 1 | Metal-Cutting Machine Tools | + 3 |
| Float Glass | + 5 | Metal-Forming Machine Tools | + 2 |
| Cement | + 1 | Tools and Dies | - 2 |
| Brick & Tile | + 4 | Foundry Equipment | - 3 |
| Ready-Mixed Concrete | + 1 | Industrial Heating Equipment | + 3 |
| Gypsum Products | + 3 | Welding Apparatus | + 4 |
| Plumbing Supplies | + 3 | Metal-Cutting Tools | + 8 |
| Fabricated Structural Metal | + 2 | Compressors | + 4 |
| Lighting Fixtures | - 4 | Pumps | + 4 |
| Lumber Mills | + 4 | Material Handling Equipment | + 2 |
| Softwood Veneer & Plywood | + 5 | Conveyors | + 3 |
| Hardwood Veneer & Plywood | + 8 | Hoists, Cranes, Monorails | + 4 |
| Particleboard | + 9 | Industrial Trucks | + 8 |
| Paper & Board | + 3 | Air-Conditioning Equipment | + 4 |
| Corrugated Boxes | + 5 | Construction Machinery | + 4 |
| Folding Boxes | + 1 | Fans & Blowers | + 1 |
| Paper Bags | + 3 | Farm Equipment | + 6 |
| Fiber Cans & Drums | + 3 | Mining Equipment | + 4 |
| Set-up Boxes | + 1 | Oil Field Machinery | + 8 |
| Metal Cans | + 1 | Food Processing Machinery | + 7 |
| Glass Containers | + 1 | Textile Machinery | + 3 |
| Industrial Inorganic Chemicals | + 2 | Printing Machinery | + 4 |
| Industrial Organic Chemicals | + 1 | Values & Fittings | + 4 |
| Paints | + 2 | Bearings | + 5 |
| Chlor-Alkalis | - 1 | Industrial Fasteners | + 3 |
| Industrial Gases | + 1 | Transformers | + 2 |
| Plastic Resins | + 7 | Switchgear | + 5 |
| Soaps & Detergents | + 2 | Motors & Generators | + 5 |
| Rubber & Products | + 7 | Industrial Controls | + 5 |
| Tires & Tubes | + 9 | Computing Equipment | + 15 |
| Hose & Belting | + 8 | Telephone & Telegraph Equipment | + 3 |
| Steel Shipments | + 7 | Electronic Equipment | + 10 |
| Ferrous Castings | + 5 | Electronic Components | + 8 |
| Refined Copper | + 9 | Auto Sales | + 13 |
| Lead | + 3 | Truck & Bus Sales | + 21 |
| Zinc | - 17 | Truck Trailers | + 15 |
| Aluminum | + 4 | Aerospace | - 5 |
| Titanium Mill Products | - 8 | Freight Cars | - 18 |
| Nickel | + 1 | Engineering & Scientific Instruments | + 3 |
| Tantalum | 0 | Measuring & Control Instruments | + 2 |
| Optical & Analytic Instruments | + 3 | Luggage & Personal Leather Goods | + 1 |
| X-Ray & Electromedical Equipment | + 5 | Household Furniture | + 1 |
| Surgical & Medical Instruments | + 7 | Household Appliances | + 4 |
| Surgical Supplies | + 6 | Consumer Electronics | + 7 |
| Dental Equipment & Supplies | + 5 | Toys & Games | + 4 |
| Photo Equipment & Supplies | + 5 | Motorcycles & Bicycles | + 3 |
| Leather Tanning | + 1 | Sporting Goods | + 2 |
| Shoes & Slippers | - 3 | Garden Equipment | + 2 |

Source: Commerce Department

# U.S. Growth Industries: Where, how much, and why

| | | The reasons | | | | | |
|---|---|---|---|---|---|---|---|
| INDUSTRY | Average growth rates 1979-85 | New products | Less than avg. price increases | Product substitutions | Expanded export markets | Energy related | Other |
| Semiconductors and related devices | 20.7 | x | x | x | x | | |
| X-ray apparatus and tubes | 6.5 | x | | | x | | |
| Optical instruments and lenses | 13.8 | x | | | x | | |
| Electronics computing equipment | 15.0 | x | x | | x | | |
| Tanks & tank components | 15.7 | | | | | | x |
| Calculating and accounting machinery | 10.0 | x | x | x | x | | x |
| Lithographic platemaking services | 4.0 | | | x | | | x |
| Electronic connectors | 7.9 | x | | x | | | |
| Wood pallets and skids | 9.0 | | x | x | | | |
| Oilfield machinery | 8.4 | x | | | x | x | |
| Pens and mechanical pencils | 5.0 | x | | | x | | |
| Metal foil and leaf | 5.5 | x | | | | x | |
| Process control instruments | 12.9 | x | x | x | x | x | |
| Biological products | 4.0 | x | x | | | | x |
| Fluid meters & counting devices | 5.9 | x | | | | | x |
| Surface active agents | 4.2 | x | | x | x | | |
| Office machines, n.e.c. | 15.0 | x | | x | x | | |
| Internal combustion engineees, n.e.c. | 5.2 | x | | | | | |
| Truck & bus bodies (incl. motor homes) | 3.0 | | | | | | x |
| Pickles, sauces, salad dressings | 6.7 | x | | x | | | |
| Air and gas compressors | 3.8 | x | | | | x | |
| Measuring and controlling devices, n.e.c | 10.6 | x | | | | | |
| Fabricated pipe and fittings | 8.5 | | | | | x | |
| Instruments to measure electricity | 8.8 | x | x | x | | | |
| Medicinals and botanicals | 5.0 | x | | | x | | |
| Wood kitchen cabinets | 7.6 | | | | | | x |
| Nitrogenous fertilizers | 2.5 | | | | | | x |
| Dog, cat, and other pet food | 2.0 | x | | | | | |
| Metalworking machinery, n.e.c. | 5.2 | x | | | | | |
| Photographic equipment and supplies | 5.2 | x | | | | | |
| Storage batteries | 3.5 | x | | | | | |
| Handsaws and saw blades | 2.6 | x | | x | | x | |
| Radio and TV receiving sets | 7.3 | x | x | | | | |
| Misc. plastics products | 4.5 | x | | x | | x | x |
| Primary batteries, dry and wet | 3.5 | x | | | | | |
| Structural wood members, n.e.c | 9.0 | x | | x | | | |
| Electronic components, n.e.c. | 7.2 | x | x | x | | | |
| Mineral wool | 3.0 | | | | | x | |
| Small arms | 4.0 | | | | | | |
| Environmental controls | 11.9 | x | | | | x | |
| Flavoring extracts and syrups, n.e.c. | 4.5 | x | | | | | |
| Flat glass | 3.7 | | | | | x | |
| Nonferrous forgings | 4.0 | | | | | x | x |
| Dental equipment and supplies | 4.7 | x | | | | | |

Source: Commerce Department

vance—a figure most analysts now think is a bit too optimistic given 1982's slow start:

■ **Steel:** Apparent steel consumption (product shipments plus imports less exports) is expected to reach 111 million tons in 1982, up more than 6% from 1981, because of improved conditions in the largest steel markets (automobiles and trucks, industrial construction, and machinery). Imported steel, estimated at 17 million tons, will share significantly in domestic markets. As for shipments of domestic steel, look for an 8% rise to 96 million tons.

■ **Copper:** Increases in demand from the durable goods and automotive sectors should cause overall copper consumption to rise about 4% to 2.17 million tons during 1982. Weak construction activity, however, should prevent any drastic increase in copper demand. But if interest rates again resume an upward trend, the 4% growth forecast could prove to be overly optimistic.

■ **Lead:** Consumption should increase about 2.8% to 1.29 million tons, while production should be up about 1.7% to 1.2 million tons. Batteries, sparked by replacement buying, should remain the strongest demand sector—increasing about 5%. But lead-in-gasoline demand should continue on a downward trend, decreasing by about 15%, to 107,000 tons.

■ **Aluminum:** Shipments in 1982 are expected to increase about 4% to a total of 14.5 billion pounds. Improvement is expected after the second quarter in most of the major markets. U.S. exports, particularly of ingot, should decrease further in 1982. Domestic primary production will be down.

■ **Zinc:** The loss of Bunker Hill's Kellogg operation will cause domestic slab production to decline at least 12% to about 370,000 tons. But total consumption is expected to increase about 8.5% to 1.02 million tons. Demand will also be helped by the U.S. Treasury's conversion from a copper to a zinc penny.

■ **Petrochemicals:** End-use demands are expected to be weak, at least through the first half of the year, reflecting conditions in the housing, automotive, and clothing industries. Large existing inventories of the basic petrochemicals will limit production. Supplies of fuel and of petrochemical feedstocks should be readily available with only moderate price increases. The pressure of imports will increase to some degree because of very weak domestic European markets.

■ **Industrial organic chemicals:** Little demand gain is seen. Price increases are expected to be moderate—in sharp contrast to the marked increases of 1978-80, during the OPEC-II crude oil crisis.

■ **Plastic resins:** A good 7% increase is seen. Recovery to the 1979 production level of 42 billion pounds is possible. Many of the problems that existed in 1981 will persist in 1982, however. Plastics materials plants, for example, may operate at higher rates than are justified by demand. And producer reluctance to raise prices may indicate a continuing struggle for resin markets.

■ **Paint:** Real shipments in 1982 are expected to rise 1.9%. This growth should parallel the increased demand for products requiring coatings. As production of automobiles, appliances, and other durable goods expands, demand for OEM coatings will be stimulated. More housing starts, as well as more repainting, should contribute to increased consumption of architectural coatings. Special-purpose coatings should make strong gains in industrial and marine maintenance.

■ **Semiconductors:** Renewed economic activity in both the United States and Europe should cause demand to improve—with U.S. gains in real terms put near 11%. But in RAMs, firming demand will not mean increased prices on high-volume orders. Predictions here for early 1982 point to prices in the $6-7 range with some quotes going as low as $4 per device.

■ **Paper and board:** Positive projections for the printing, packaging, and tissue industries, which use more than 80% of U.S. output, should offset the negative prospects for other domestic market ares. As a result, industry shipments (in real terms) are expected to grow 3.2%—enough to increase production to 68.0 million tons.

■ **Corrugated:** Look for a 4.5% climb in real growth—with the quantity of corrugated boxes shipped in 1982 topping 261 billion square feet (an all-time record high for the industry). Gains reflect an anticipated improvement in end-user (especially durables) packaging requirements, a slight easing in the annual rate of price increases, adequate raw materials (boosted by relatively high containerboard inventory levels), and a gradually improving business climate.

■ **Metal cans:** Count on only a small 1.1% real rise. Reasons: (l) The relatively low-growth markets for metal cans and (2) inter-packaging competition. The latter will come from single-service glass bottles, particularly in the beer market, as major brewers select glass for light and premium beers. In soft drinks, standard-size 16-ounce glass bottles are expected to pressure metal can growth, and make inroads against metal cans in the vending market.

■ **Glass containers:** Again only a small 1% real rise is anticipated in 1982. Cost pressures from labor, energy, and materials expenditures should decline, following diminishing plant capacity. The plastic bottle threat in 1982 will come from the half-liter plastic size in competition with 16-ounce glass bottles. Also, a major struggle will continue in soft drink packaging between single service glass bottles and metal cans in both retail and vending markets.

■ **Lumber:** Real shipments for 1982 are expected to rise 4.3%—assuming an increase in residential construction to 1.2 million units, of which about 70% are expected to be single-family units. And, the use of lumber in repair and remodeling (residential and non-residential) is expected to increase about 2%. Demand for "other uses" (mining, railroads, military, etc.) should rise 5%.

■ **Machine tools:** Combined shipments of metal-cutting and metal-forming types are expected to show an 8% gain over 1981 adjusted for inflationary pressures. Net new orders should rebound about 30% over 1981. Backlogs, now near $4 billion, are expected to remain healthy.

■ **Valves and pipefittings:** Real 1982 increases are put at 4%. Continued expansion is expected in sales to producers of equipment for oil and gas extraction and processing, and most industrial equipment. The mining and mining machinery equipment markets should grow significantly, too. But soft markets are expected in the utility and synfuels sectors.

■ **Ball and roller bearings:** Inflation-corrected gains of 5% are seen. Modest expansion is expected in automotive, construction and farm machinery, and general and special industrial machinery market segments. The aircraft market is the only major segment expected to dip in 1982, but it should pick up later in the 1980s as military expenditures expand. ***PW***

MOODY-TOTTRUP
INTERNATIONAL
WORLDWIDE...

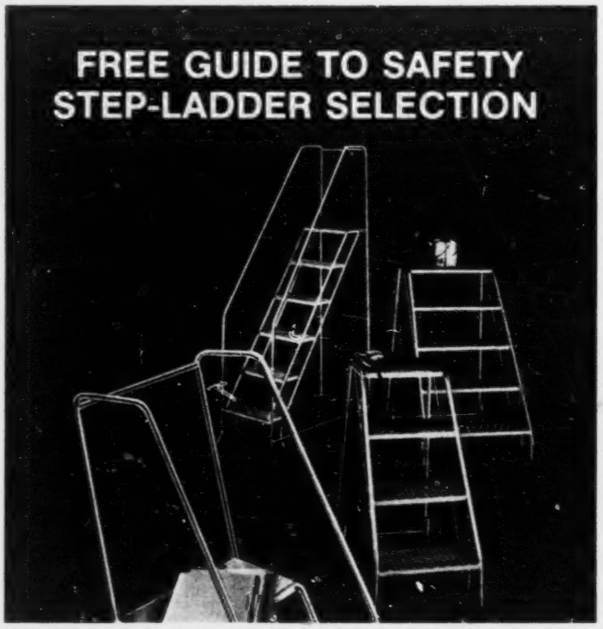
EQUIPMENT INSPECTION • TUBULAR INSPECTION
EXPEDITING • CONSTRUCTION INSPECTION •
VENDOR SURVEYS • PROCUREMENT • LIQUID
CARGO INSPECTION • TRAINING

The highly skilled staff of Moody-Tottrup is strategically located throughout the world to reduce travel, thus providing a quality service at a low cost. **Write or Phone for Literature**

MOODY-TOTTRUP
INTERNATIONAL
226 FRIENDSHIP PLAZA BUILDING
PITTSBURGH, PA 15206
412/361-6263 Telex: 902819
MOODY-TOTTRUP WORLDWIDE GROUP OF COMPANIES
United States, Canada, United Kingdom, Japan, Korea, Indonesia
Scandinavia, Italy, Greece, Malaysia, Brunei, Singapore

A Reliance Group Consulting Company

Circle 123 on card



FREE GUIDE TO SAFETY STEP-LADDER SELECTION

Selection guide covers rolling warehouse ladders. Forty standard models. Steel and aluminum. Most in stock. Working heights to 17'. Top quality materials. All-welded construction. Three year warranty. Comply with OSHA 1910.29. Write today for free selection guide: Ballymore Company, 220 Garfield Ave., West Chester, PA 19380. Phone: 215-696-3250. Telex: 902495.

BALLYMORE

Circle 124 on card

# Steel inventories rated 'too high'

Steel inventory retrenchment may still have a ways to go. At least that's what the majority of steel buyers and steel service centers are telling survey takers these days.

To be sure, both groups have cut their tonnage holdings in recent months. But their requirements have also declined—so that steel days' supply in both cases has actually edged up a bit in recent weeks (see chart).

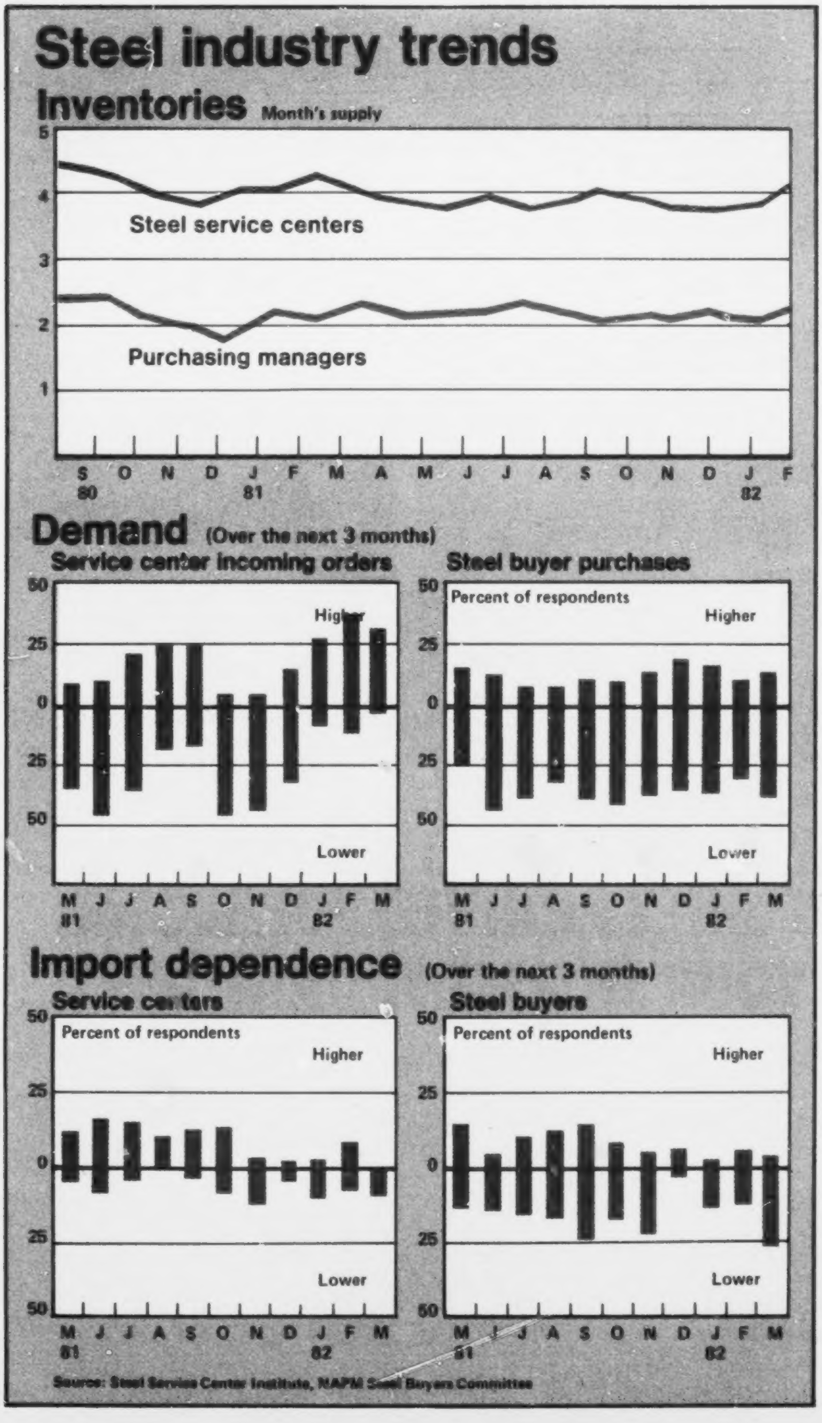
Other key findings of two just released reports—one from the NAPM steel buyers group and the other from the Steel Service Center Institute (SSCI):

- **Nearterm inventory strategy:** No disagreement here—as both groups are pretty much unanimous in rating their steel stocks as "too high." Thus, they are contemplating some additional nearterm tonnage reductions.
- **Demand:** Some differences of opinion here. Service centers, for example, are now somewhat optimistic about the next three months—with a fair number anticipating some increase in incoming orders. Not so for most steel buyers. Those who expect to reduce their incoming receipts of steel now outnumber those who anticipate some stepup by a better than 2:1 margin.
- **Supply availability:** No sweat anywhere—with both buyers and distributors seeing absolutely no problems developing the next few months.
- **Speed of payment:** Distributors continue to note foot-dragging on the part of their customers—with 23% reporting less prompt payment. Steel buyers add that their own firm's are having an even bigger problem—with some 68% of the respondents putting their companies' account receivables in the "late" category.
- **Imports:** Overseas competition is gowing even more intense. Indeed, both groups report an increase in the price advantage of foreign over domestic types. For instance, some 20% of surveyed steel buyers (the largest such number in years) now say they are getting foreign offerings substantially below domestic quotes. And another 77% (again the largest number in years) are experiencing at least a modest price differential.

A similar trend is noted by steel service centers; some 43% of the queried distributors note the availability of foreign carbon steel at prices ranging 10% or greater under comparable domestic levels. And an almost-as-impressive 22% find the same is true in stainless steel.

Service centers, meantime, have also revised their overall 1982 tonnage shipment estimate downwards. Right now, the SSCI is predicting about a 5% decline—reducing the basically flat forecast made a few months ago. Indeed, even the pockets of previous strength (the South and Sunbelt) have disappeared.

But the situation isn't all that bleak according to Andrew Sharkey, SSCI president, who notes "many of our people feel we have hit bottom."



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

# Leadtimes are no problem, but could become one

Chalk up another virtually problem-free month as far as industrial purchasing is concerned. Not only are vendors willing to listen to any reasonable offer, but they also continue to whittle down already extremely low leadtimes.

But purchasing managers queried in ***Purchasing World's*** latest monthly procurement survey are beginning to express some concern about the longer pull. For one, they feel that the business pickup now anticipated for the third quarter could make for some tightening up.

Some buyers add that current close-to-the-vest vendor inventory strategy will also bear watching. As one PM put it, "This kind of supplier fine-tuning could play havoc with delivery schedules if the fall pickup is more rigorous than currently anticipated."

But while the possibility of such problems certainly exists, most buyers agree that it's now a "no-sweat" situation—an assessment that's confirmed by these key procurement yardsticks:

- ***Purchasing World's*** exclusive leadtime index (see chart below) again registered a bit under the neutral "50" mark—thus signifying a further edging down in average leadtimes.
- The NAPM Business Survey Committee finds that 26% of its respondents are now getting faster deliveries—far more than the small 2% noting slowdown.
- Forward commitments continue to shrink, with only 18% ordering 90 days or more in advance. That matches the low point hit in January. ***PW***

## Leadtimes and availability

**Chicago:** No changes from last month's low levels. Typical waits (in weeks): shrink film (6), film laminations (8-10), chlor-alkalis (½), PVC resins (1), batteries (12-14), cables (7-10), connectors (10-14), fuses and circuit breakers (4-8), integrated circuits (14-18), valves and fittings (1), steel sheet (4-5).

**Cleveland:** Only a few changes here. On the downside are coil-coating paint (now 3 weeks) and cold-finished aluminum (8-10). But a slight edging up is noted for polyethylene and PVC resins (to 2-3). Unchanged are lumber and plywood (3), alloying materials (on demand), two-ply fiber drums (2), and folding boxes (4).

**Houston:** Some modest declines are reported. Cast steel valves (150-600 psi) are down to less than 6 months, as shop loads drop and imports from Japan speed up. Special machined parts are also available faster (8-10 weeks vs. the previous 10-14). Unchanged are corrugated (2-6) and mill steel (4-8).

**Los Angeles:** The trend is still down, with new lower waits (in weeks) as follows: synthetic rubber (1-1½), filler clay (2), paints (3-4), heavy-duty steel (9-11), heavy aluminum sheet and pipe (21-26), large valves (26-42), silbrazed fittings (9-13), electric equipment (13-21). But adhesives are out to 1½-2.

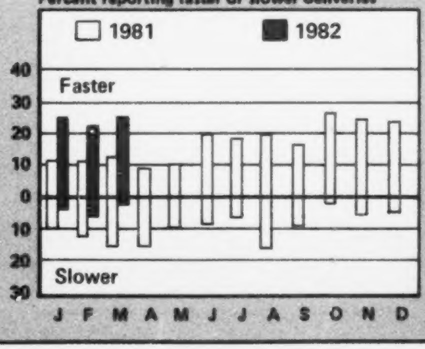
**Philadelphia:** Declines predominate, with these lower leads (in weeks): hot-rolled steel bars (6-7), steel plate (4-5), and special alloy tubing (17-26). Paper and packaging also remain easy—far under late 1981 levels. Examples: xerographic paper (1), computer paper (½), and corrugated (1-2).

**Pittsburgh:** No major changes noted. Some typical leads (in weeks): multiwall bags (10-12), plastic bags (3-4), corrugated (3-4), fiber drums (3-4), groundwood papers (6-8), steel strapping (2-3), maintenance paint (5), polyethylene and PVC (4), alloying materials (2-3, except 6 for tin), and plastic film (2-4).

## PW monthly procurement status report

**Delivery performance**

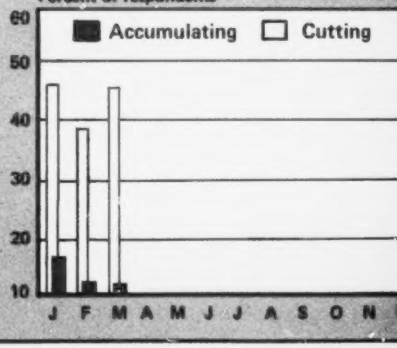
Percent reporting faster or slower deliveries



Source: NAPM

**Inventory strategy**

Percent of respondents



# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 5 | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 6½ | 8½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 7 | 11 |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 10 |
| Grey Iron Castings (LA) | 3½ | 3½ | 4 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 10½ |
| Capacitors (Chgo) | 13 | 13 | 5 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 9 | 9 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 13 | 13 | 6 |
| Relays (Chgo) | 15 | 15 | 12 |
| Resistors (Chgo) | 12 | 12 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 1½ | 1 | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | 1/5 | 1/5 | 1/5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 4 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 7 |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 2 | 1½ | 2½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3½ | 4 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2 | 2 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2½ | 2 | 2½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 3 |
| Titanium Dioxide (LA) | 1½ | 1 | 1 |

## Paper

| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

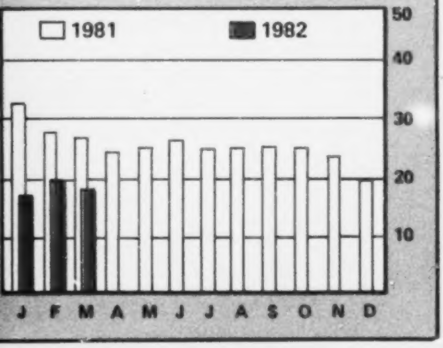
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 8 |
| Aluminum Plate (Chgo) | 7 | 7 | 8 |
| Aluminum Sheet (LA) | 12 | 12 | 11 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 4½ | 4½ | 7 |
| Brass Rods (Chgo) | 2½ | 2½ | 10 |
| Brass Sheet (Chgo) | 5 | 5 | 9½ |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 6 | 6 | 7 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 6 | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 6 | 6 | 7 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

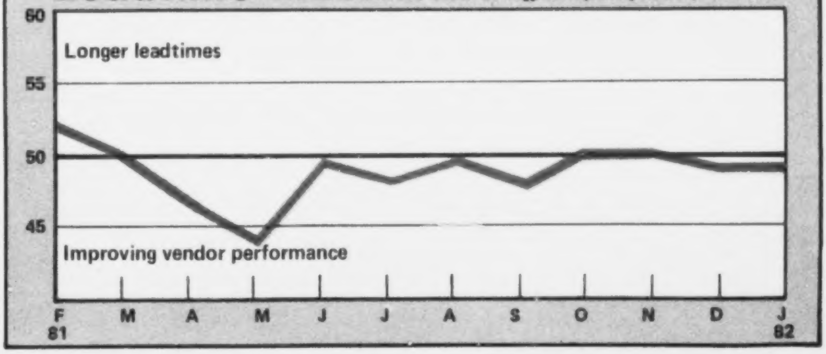
| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 4½ | 4½ | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 5 | 7 |
| Machined Parts (Hous) | 9 | 12 | 12 |
| Pipes & Valves (Chgo) | 1 | 1 | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 9 | 9 | 11 |
| Rubber, Synthetic (LA) | 1 | 1½ | 1½ |
| Rubber Hose (LA) | 7 | 7 | 6½ |
| Tungsten Carbide Parts (Hous) | 16 | 16 | 16 |
| Valves, Cast Steel (Hous) | 13 | 17 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## Forward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Expect some shifts in clear plastics market mix

Look for some fairly significant changes in the close-to-500-million-lb transparent-molded-plastic market—a sector which is likely to continue advancing at near a 7½% annual rate.

A new Business Communications Co. study provides the details. This consulting firm sees a gradual shift away from polystyrene. This plastic, while it provides a high degree of clarity at reasonable prices, does not meet other physical criteria.

Specifically, high-performance engineering resins are now getting the nod in applications where more exacting standards than just clarity apply. Examples: polycarbonate for impact strength, acrylic PMMA for ultraviolet stability, polysulfone for heat resistance and flammability, and polymethylpentene for its high chemical resistance.

The report concludes that two, clear thermoplastic resins will show the biggest advances: butadiene styrene, on the basis of its attractive price and impact strength; and polymethylpentene for its outstanding clarity, lightness, and chemical resistance. ***PW***

# Business index revised for greater accuracy

The NAPM business barometer, published exclusively in ***PurchasingWorld*** since September 1980, has been fine-tuned for greater accuracy.

Two changes in the monthly data—officially called the Composite Diffusion Index by the Department of Commerce—have made them more sensitive to nearterm change: the application of seasonal adjustment factors, and the assignment of greater weight to new orders and production.

The index was developed by the Commerce Department from five components of the monthly business survey conducted by the National Association of Purchasing Management: new orders, production, employment, vendor performance, and inventories.

"The purchasing managers' monthly data can provide a valuable supplement to our store of economic intelligence," a Commerce Dept. official said. " One particularly important feature is that it becomes available before most conventional data is published." ***PW***

# Study confirms PM pay raises

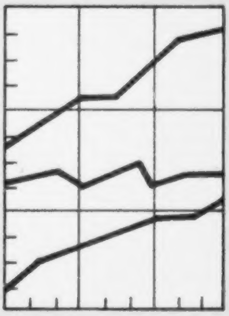
Looking for another yardstick to gauge overall salary performance? Then you might want to get your hands on the Administrative Management Society's 1981 pay survey.

Covering purchasing managers, buyers, and warehouse managers, the study confirms the increasing recognition the profession is now getting—with salary boosts last year running close to, or in, the double-digit range. (Detailed salary information is also provided in ***PurchasingWorld***, August and September 1981 issues.)

Specifically, the AMS study says, the typical purchasing manager received a big 13.6% pay hike last year—bringing the average salary level to $28,400.

But these numbers tell only part of the story. Zero in on purchasing managers working in manufacturing or processing industries, and the average salary rises to near $30,000. ***PW***

## Latest scrap quotations

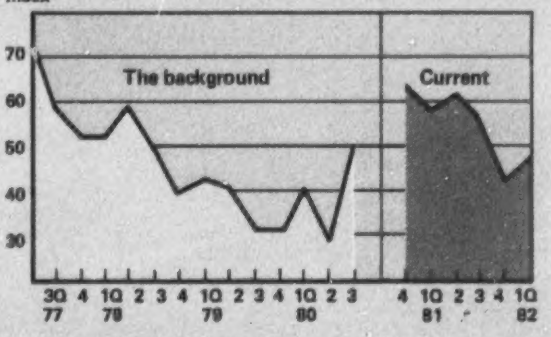


| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 74.00 | 84.00 | 116.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 83.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 63.00 | 71.00 | 104.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.593 | 0.610 | 0.790 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.523 | 0.545 | 0.690 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.55 | 0.57 | 0.75 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.35 | 0.36 | 0.42 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.26 | 0.28 | 0.36 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.27 | 0.29 | 0.40 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.130 | 0.140 | 0.145 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.15 | 0.15 | 0.22 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 8.00 | 8.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y. ton | 7.00 | 7.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.08 | 0.08 | 0.15 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.13 | 0.14 | 0.38 |

## Leading indicators

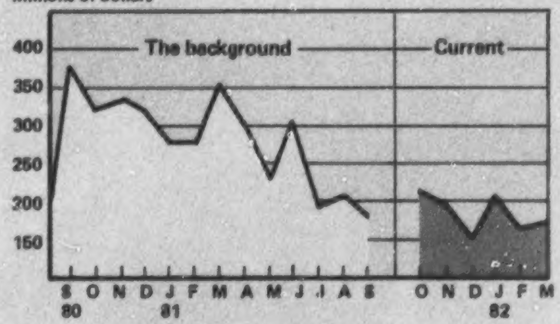
### 1. Business confidence

Index



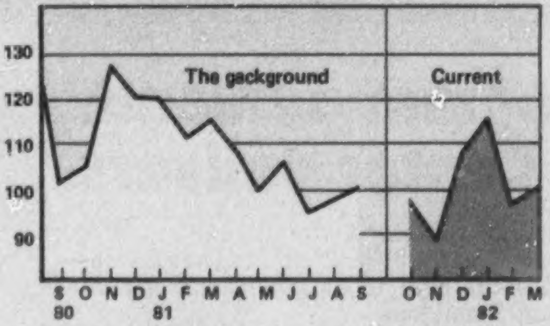
### 2. Machine tool orders

Millions of dollars



### 3. Construction contracts

Index: 1977 = 100 (seasonally adjusted)



**Business in brief:**

# Pickup still on hold

Don't count on any late spring pickup. Indeed, any sustained business advance will now probably have to wait until late summer or even fall.

The NAPM's business barometer would certainly seem to confirm the lackluster nearterm outlook—with the latest reading put at only 37.4%—well under the neutral "50" level.

Business confidence also leaves quite a lot to be desired. To be sure, the figures aren't nearly as low as they were back in 1980. But they do remain well under those prevailing early last year when "Reaganomics" was expected to perform miracles (top chart).

The relatively low confidence index is probably one reason why corporate executives are dragging their feet in the capital investment area. Note on this score that incoming machine tool orders are at extremely low levels—more than 40% under yearago levels (center chart).

On a somewhat rosier note, machine tool builders now say that things should start levelling off—with perhaps even some modest pickup possible in defense-related areas over the next few months. But they hasten to add that any signifcant recovery in their business is highly unlikely until interest rates start coming down.

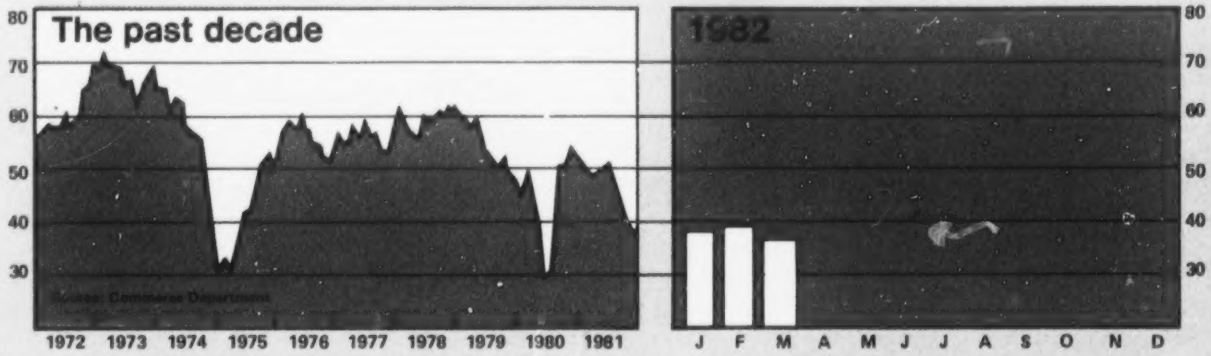
Construction is still another key sector where interest rates remain a special factor. As shown on the bottom chart, new contract awards—a lead indicator of future building activity—still shows no sign of recovery.

Despite all this, the medium-term outlook (late summer and beyond) doesn't look all that bad. For one, the 10% tax cut scheduled for early this summer should eventually loosen consumer purse strings. Also by then a compromise on the budget—resulting in reduced defense spending and some slowdown in scheduled 1983 tax reductions—should have been hammered out. And once this is resolved, interest rates should begin to edge lower.

What does it all add up to? Some fractional real GNP declines in the current (second) quarter, a bottoming out this summer, and some modest 2-3% gain at annual rate over the last three months of the year. Also on the encouraging side: Most econometric models are optimisitic about the following year (1983)—with real gains expected to vary anywhere from a low of 3% to a high of 5%. ***PW***

## NAPM business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)

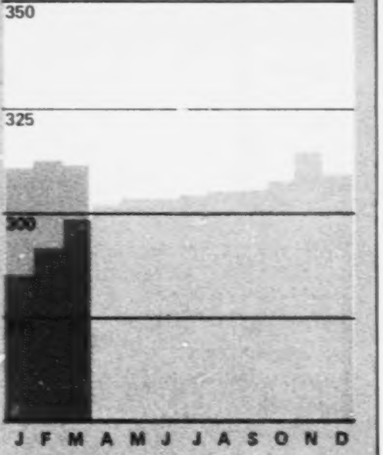


## Industrial prices at a glance

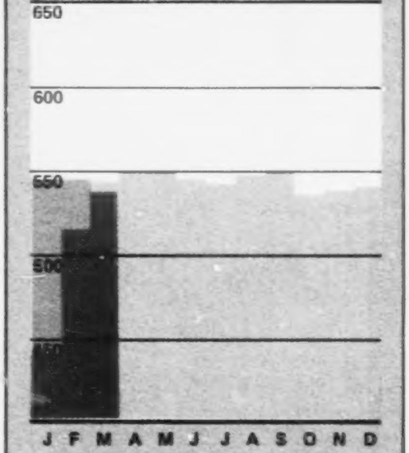
1981 ☐ 1982 ▨

### All items

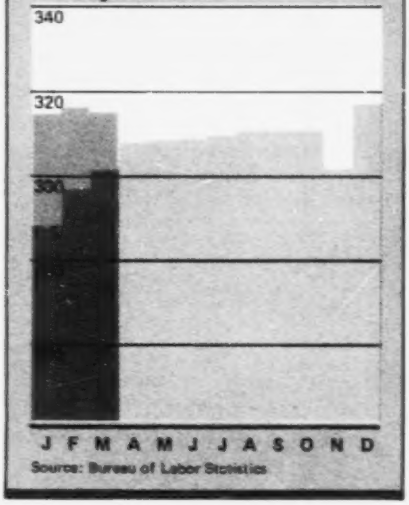
Index: 1967 = 100



### Raw materials



### Semifabs, components



Source: Bureau of Labor Statistics

# Price averages unchanged

More good news from Uncle Sam's price watchers: Industrial wholesale price averages have remained virtually unchanged for the third straight month in a row.

This time, the weakness was pretty widespread, with nonferrous metals, plastic resins and enegy all recording some pretty sharp declines—enough to offset a continuing creep up in some of the other key sectors.

In the energy area, declines were recorded in gasoline, home heating oil, residual fuel, liquid petroleum gas, diesel fuel, kerosene, and crude petroleum. These more than offset boosts in natural gas and electricity.

Weakness has also spread to some capital goods areas, with both construction equipment and welding machinery off from the previous month. But increases in other machinery sectors more than outweighed this easiness. So, overall capital equipment tags rose about 0.5%.

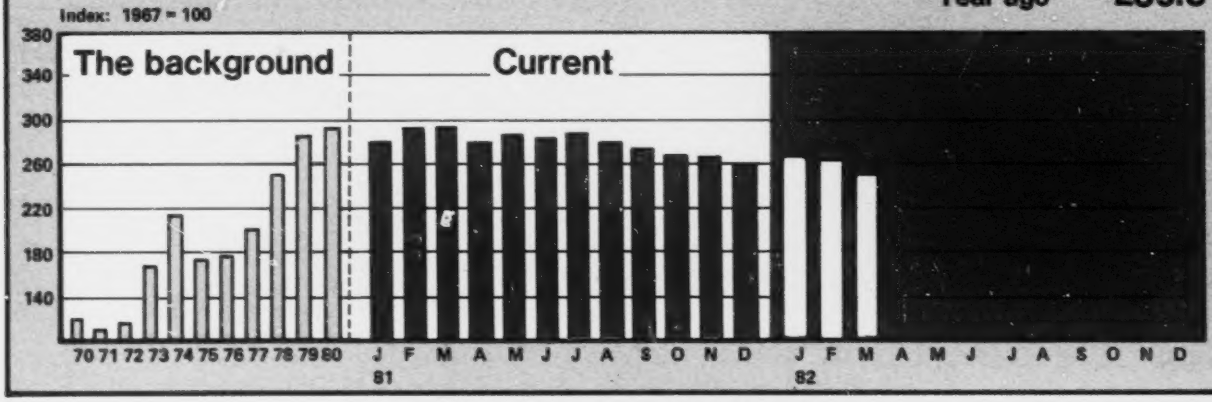
On the other hand, there were a few disappointingly big hikes—most notable in rubber belts and belting (3.5%), small cutting tools (0.8%), measuring instruments (0.7%), electric motors (1.3%), switchgear (1.2%), and glass containers (2.2%). ***PW***

## This month's breakdown

| | Latest level (March) | Percent change from: | |
|---|---|---|---|
| | | Month ago | Year ago |
| Bearings | 322.2 | 0.1 | 9.8 |
| Bolts, nuts, etc. | 271.9 | 0.1 | 5.3 |
| Chemicals, inorganic | 312.8 | 0.1 | 11.1 |
| Chemicals, organic | 388.6 | −0.1 | −1.1 |
| Concrete products | 296.0 | 0.1 | 3.2 |
| Cutting tools, small | 275.4 | 0.8 | 8.8 |
| Electrical instruments | 257.2 | 1.3 | 10.5 |
| Electric lamps (bulbs) | 276.9 | −1.0 | 4.1 |
| Fans and blowers | 333.6 | 0 | 6.4 |
| Fittings, industrial | 304.1 | 0 | 1.7 |
| Foundry and forge products | 346.0 | 0.5 | 7.2 |
| Fuel oil (residual) | 1163.0 | −2.2 | −12.1 |
| Furniture, commercial | 273.9 | 0.8 | 6.1 |
| Gasoline | 680.2 | −2.9 | −8.0 |
| Glass, flat | 216.2 | 0 | 5.6 |
| Glass containers | 355.2 | 1.6 | 14.1 |
| Gypsum products | 280.7 | 2.2 | 1.2 |
| Hand tools | 328.6 | −0.1 | 7.7 |
| Hand tools, power driven | 219.0 | 0.1 | 4.8 |
| Industrial furnaces | 343.8 | 0.5 | 5.1 |
| Integrating and measuring instruments | 210.3 | 0.7 | 8.7 |
| Internal combustion engines | 318.5 | 0.2 | 8.3 |
| Lubricating oil | 698.1 | 0 | 6.2 |
| Lumber millwork | 276.4 | −0.7 | 0.3 |
| Material handling equipment | 268.4 | 0.3 | 5.5 |
| Metal containers | 326.1 | 0.2 | 3.8 |
| Metal mill shapes (nonferrous) | 303.2 | −0.5 | 0.2 |
| Metal tanks | 313.3 | 0.2 | 4.9 |
| Motors and generators | 310.9 | 0.3 | 7.8 |
| Motor trucks | 269.1 | 0.7 | 5.7 |
| Office and store equipment | 150.5 | 0.1 | 2.7 |
| Paperboard | 261.1 | −0.1 | 2.4 |
| Paper boxes and shipping containers | 252.1 | 0.4 | 5.5 |
| Paper office supplies | 222.0 | 0 | 5.1 |
| Paint | 289.3 | 0 | 5.2 |
| Plastic resins | 286.8 | −3.1 | 2.6 |
| Precision measuring tools | 235.3 | 0 | 8.0 |
| Pumps and compressors | 346.0 | 0.2 | 9.7 |
| Refractories | 338.4 | 2.3 | 14.3 |
| Rubber belts and belting | 333.1 | 3.5 | 17.5 |
| Scales and balances | 226.3 | 0.4 | 1.5 |
| Steel products | 349.2 | 0 | 6.7 |
| Switchgear | 258.8 | 1.2 | 4.8 |
| Textiles, synthetic fibers | 163.8 | −0.2 | 10.0 |
| Textiles, gray fabrics | 147.1 | −0.2 | 1.7 |
| Tires and tubes | 256.3 | −1.3 | 3.1 |
| Transformers and power regulators | 221.8 | 0.3 | 9.5 |
| Valves, industrial | 327.1 | 0 | 5.5 |
| Welding equipment | 265.3 | −2.2 | 3.6 |
| Wire and cable | 206.8 | 0.1 | −0.5 |

# PW raw material price barometer

Latest month **254.9**
Month before **261.0**
Year ago **289.8**



# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Chi., cwt | 22.90 | 22.90 | 19.90 |
| Steel, structural shapes, Los Angeles, cwt | 23.40 | 23.40 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt | 31.00 | 29.20 | 29.20 |
| Steel, plates, Chi., cwt | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt | 20.80 | 20.80 | 19.50 |
| Steel, sheets, C.R., Detroit, cwt | 24.65 | 24.65 | 23.15 |
| Steel, strip, C.R., Chi., cwt | 29.05 | 29.05 | 28.85 |
| Steel, basic wire, Pitts., cwt | 23.65 | 23.65 | 22.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb | 1.02 | 1.02 | 1.02 |
| Antimony, RRM, (99.5%), Laredo, lb | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb | 4.60 | 4.60 | 3.74 |
| Brass, red, 85%, [sheet], lb | 1.18 | 1.19 | 1.30 |
| Brass, yellow, [sheet], lb | 1.12 | 1.13 | 1.24 |
| Cadmium, ton lots, lb | 1.10 | 1.40 | 2.00 |
| Copper, electrolytic, wire bars, refd., lb | 0.75 | 0.77 | 0.89 |
| Copper sheet, over 24 in., lb | 1.27 | 1.28 | 1.39 |
| Lead, common, N.Y., lb | 0.26 | 0.27 | 0.34 |
| Magnesium, pig ingot, [99.8%], lb | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl | 390.00 | 380.00 | 420.00 |
| Molybdenum Climax Oxide/bags, lb | 8.50 | 8.50 | 9.35 |
| Nickel, electrolytic, producer, lb | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz | 475.00 | 475.00 | 47".00 |
| Silver, N.Y., oz | 7.07 | 7.80 | 12.09 |
| Tin, Straights, N.Y., lb | 6.57 | 6.70 | 7.06 |
| Zinc, Prime West, East St. Louis, lb | 0.35 | 0.41 | 0.43 |
| Zinc, die casting alloy, No. 3, lb | 0.445 | 0.475 | 0.478 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb | 0.460 | 0.445 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal | 1.52 | 1.51 | 1.95 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb | 0.805 | 0.805 | 0.760 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.315 | 0.345 | 0.345 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb | 0.42 | 0.42 | 0.38 |
| Polyethylene resin, high-pressure molding, carlots, lb | 0.45 | 0.45 | 0.45 |
| Polypropylene, G-P injection molding, lb., railcar shipment | 0.40 | 0.40 | 0.36 |
| Polystyrene, G-P crystals, bulk railcar, lb | 0.41 | 0.41 | 0.50 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt | 6.15 | 6.15 | 6.15 |
| Sytrene monomer, 99.6%, tanks, lb | 0.375 | 0.375 | 0.416 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots lb | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal | 1.45 | 1.48 | 1.50 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Multiwall kraft paper, 50 lb. basis wt. and above, ton | 400.00 | 400.00 | 375.00 |
| Offset paper, No. 1 Grade | 49.70 | 45.50 | 40.55 |
| Reinforced tape, non-asphaltic grade, carload quantities, distribution cost | 16.00 | 16.00 | 16.00 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 300.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 305.49 | 310.16 | 334.43 |
| Lumber 2x2, pine, mbf, cl | 281.23 | 283.17 | 309.53 |
| Plywood, plyform, 3/4", msf, cl | 580.05 | 581.60 | 600.77 |
| Plywood, 5/8", msf, cl | 334.88 | 333.60 | 357.25 |
| Cement, bulk, ton, tl | 62.21 | 62.23 | 60.91 |
| Sand, ton, cl | 6.02 | 5.98 | 6.08 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.72 | 45.42 | 44.30 |
| Crushed stone, 1½", ton, cl | 7.75 | 7.69 | 7.58 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.74 | 0.73 | 0.67 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 154.68 | 154.68 | 144.71 |
| Brick, common, per thousand, tl | 173.00 | 172.85 | 157.82 |
| Asphalt paving, AC-20 | 165.04 | 167.13 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.72 | 6.70 | 6.40 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.245 | 0.232 | 0.266 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd | 1.00 | 1.00 | 1.02 |
| Cotton middling, 1", N.Y., lb | 0.629 | 0.612 | 0.817 |
| Printcloth, 48", 80x80, N.Y., spot yd. | 0.68 | 0.70 | 0.76 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.87 | 1.20 |
| Blended printcloth, 64", 78x54, yd | 0.625 | 0.700 | 0.770 |
| 20s combed yarns | 1.72 | 1.73 | 1.88 |
| Wool tops, N.Y., lb | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb | 0.44 | 0.59 | 0.55 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb | 0.463 | 0.473 | 0.612 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 23.00 | 22.50 | 26.75 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 31.30 | 33.30 | 40.63 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.880 | 0.913 | 1.038 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.835 | 0.894 | 1.070 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.805 | 0.860 | 1.020 |
| Heating oil, No. 2, N.Y., bulk, bbl. | 83.80 | 92.60 | 105.80 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 23.25 | 23.75 | 25.50 |
| Jet kero, Gulf, spot, gal. | 0.870 | 0.900 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.34 | 0.41 | 0.46 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

-1 C8650-2 6/21/82

June 1982

# Purchasing World

1906 14 2906469 11 W16 1
COPY TWO
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY/STE 800
WASHINGTON DC 20014

## What's Ahead

**Deflation** may not last much longer. Purchasing managers expect prices to start rising again in a few months (p. 8).

**Steel shipments** for 1982 are now estimated to run somewhere between "not too high" and "disastrous" (p. 12).

**Labor costs** are moderating a bit, but overall impact on inflation will not be substantial (p. 44).

## Paul Farrell receives J. Shipman Award

—page 30

Paul V. Farrell, managing editor, ***Purchasing-World***, was honored last month with the J. Shipman Award, presented by the National Association of Purchasing Management for outstanding contribution to the purchasing profession. In presenting the award, commonly called "the purchasing profession's highest honor," the NAPM noted Farrell's 35 years of pursuit of new ideas and better methods.

'Minimills': Strength in domestic steel —page 48

BEST AVAILABLE COPY

**PurchasingWorld**® Vol. 26, No. 6 - June 1982

***Helping you manage the business of buying***

**Editorial Staff**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichard†**

Managing Editor
**Paul V. Farrell†**

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Art Director
**Richard Treflek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **PMs say price lull to end soon.** PMs expect some fair-sized advances over the next 12 months if business picks up as expected.

30 **Leadership through service: Paul V. Farrell, C.P.M., wins J. Shipman Award.** The purchasing profession's highest honor reflects 35 years' service.

33 **Inhouse training for the newly appointed buyer.** Here's a step-by-step guide that starts with the basics and leads into longrange professional development.

44 **Labor rate increases will ease.** Labor costs may moderate a bit, but don't expect miracles as far as any overall impact on inflation is concerned.

48 **'Minimills': Pinpointing the strength in domestic steel.** Their growing capacity, low costs, and high productivity make the so-called 'minimills' prime potential sources for the steel buyer.

54 **Buying copier toner: The confusion, and the facts.** Here's a guide to sort out all those conflicting claims about copier toners.

57 *TechFile:* **Programmable controllers.** Programmable controllers, just one member of the family of industrial controls, are both solid-state reliable and easily programmed.

86 **No purchasing department is too small for value analysis.** Value analysis is a handy, cost-saving tool for buyers not only at large companies, but at small and medium-size firms as well.

## Around the purchasing world

12 ***PW* Predicts**
18 ***PurchasingWorld* Perspective**
22 **Washington Perspective**
24 **Purchasing and the Law**
26 **Effective Negotiating**
29 **Materials Management Close-up**
58 **Principles of Value Analysis**
60 **SSCI Survey of Business Conditions***
64 **Product Briefs***
68 **Product Information***
72 **NAPM Perspective***
75 **Labor Perspective**
78 **Transportration Briefing**
88 **Price Perspective**
94 **Latest Scrap Quotations**
96 **Business in Brief**
100 **Procurement Status Report**
102 **Industrial Prices at a Glance**
104 **Raw Materials Price Barometer**

* Metalworking edition

ABP
BPA

*PurchasingWorld* (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. ©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of the Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659.

# PMs say price lull to end soon

Inflation may have been stopped dead in its tracks. But don't expect the lull to last much beyond the next few months.

So say the overwhelming number of purchasing managers responding to a just-completed ***PurchasingWorld*** survey on prices. They do not see any return to the double-digit inflation rates of 1980 and early 1981. But most are reconciled to some fair-sized advances over the next 12 months if business picks up as expected.

As one vice president of purchasing put it: "There is bound to be a catch-up as new orders gradually recover and vendors move to recoup previously absorbed cost increases. But we feel we can keep any rise to manageable proportions." Other comments confirm this thinking.

Much of the expected upward impetus is expected to come from the elimination of discounts and other unofficial price shadings, rather than from any big hikes in official lists. Any list increases, the respondents indicate, will be spotty for the most part—at least as far as the remainder of this year is concerned.

## Specific trends

Here's a rundown on how these industrial purchasing executives appraise the price outlook:

- **Current situation:** No sweat. Some 59% of the respondents now report a significant deceleration in the rate of inflation, and another 38% classify the relief as "moderate." In short, 97% say they're considerably better off than they were at the beginning of the year.
- **Price shading:** Almost every respondent reports some kind of price break. The most popular approaches (in descending order of importance): more liberal terms of sale, cash discounts, longer price guarantees, additional servicing by suppliers, and more freight absorption. Other ploys getting mentioned include postponement of announced increases, one-shot lower price deals, temporary voluntary allowances (TVAs), lower base-cost rates, and faster deliveries.
- **Soft areas:** The list here is extensive, including steel, nonferrous metals, paper products, chemicals, plastic resins, building materials, castings, forgings, machinery, electrical equipment, office supplies, textiles, and electronic components.
- **Next six months:** A slight tendency toward acceleration is anticipated. The survey's specific findings: same pattern as early 1982—66%, some accelaration—21%, deceleration—13%.
- **First half next year:** The vast majority of respondents (78% to be exact) feel that inflationary pressures will be on the rise vis a vis the last six months of 1982.
- **June 1982 to June 1983:** There's pretty much unanimous agreement here, too. About four out of five buyers anticipate increases in the 6-8% range over this 12-month period. Add in the few who see either bigger or smaller increases, and the average of all replies suggests about a 7% overall advance. That's some two percentage points under the 9% estimate given for the 12 months of 1982 when a similar question was asked at the end of last year.
- **Specific increases:** Most items are expected to experience some upward price pressure—especially in early 1983. But the biggest increases will likely occur in such currently hard-hit categories as steel, copper, aluminum, nickel, petrochemicals, plastic resings, paper products, and component parts (motors, bearings, and valves).

## Buying strategies

Despite the expected upward movement, buyers seem determined to keep boosts within bounds. Most say they will challenge each and every hike, demanding justification, shopping around, and looking at cheaper imports, if necessary.

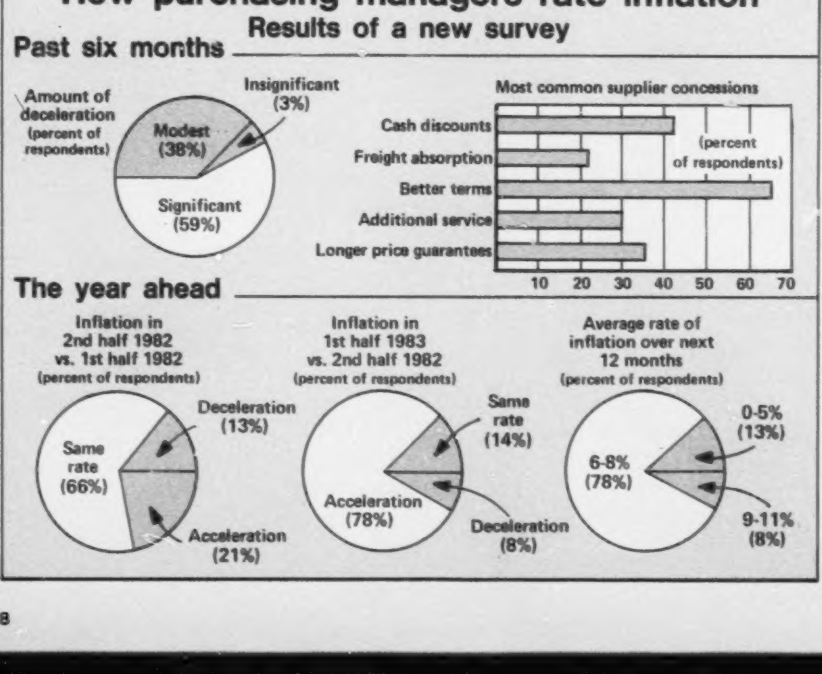
Several add they will use the current lull to press for more and longer price guarantees. As one PM expressed it, "Now's the time to negotiate such pacts—before things start picking up again." Another notes that he has been able to negotiate three to five years out, with fixed prices in the earlier years and maximum allowed increases toward the end of the contract.

Other approaches suggested: (1) stretching inventories by shifting more of the burden onto suppliers; (2) demanding downward list price adjustments, rather than discounts, so that any subsequent percentage increase will be from a lower base; (3) multiple sourcing; (4) more stringent quality requirements; and (5) greater use of standardized materials.

One East Coast buyer sums it all up: "Sure, we're plugging in some increases for early next year. They have to come if our suppliers are to remain viable. But given such factors as excess capacity, the slow pace of recovery, and a basically deflationary psychology, we feel we will have enough bargaining leverage to keep hikes within bounds." ***PW***

### How purchasing managers rate inflation

Results of a new survey



## PW Predicts...

By Robert S. Reichard, prices, economics editor

# Imports key factor in steel pricing

The steel market continues to take its lumps—with shipment estimates for 1982 as a whole ranging from a not-too-high 80 million tons all the way down to a disastrous 70 million (last year some 87 million tons cleared the market).

The 70-million-ton estimate may be a bit too pessimistic, for it assumes second half shipments will total only 35 million tons—the same as in the first six months. But if this estimate does prove correct, it would be the lowest tonnage shipped in some 20 years.

As might be expected, prices continue to be heavily discounted—with the shading in some sectors running upwards of $50/ton. And even the few scheduled increases (like the $20/ton boost in plate) has been postponed.

Low-priced imports are a key factor. Not only are they reducing domestic shipments, but they are playing a major price role—with both buyers and distributors still reporting substantial differentials between comparable domestic and foreign grades.

Early 1982 import figures point up the impact of imports. Close to five million tons entered the nation in the first quarter—up 35% from a year earlier and enough to account for over 20% of the entire U.S. market.

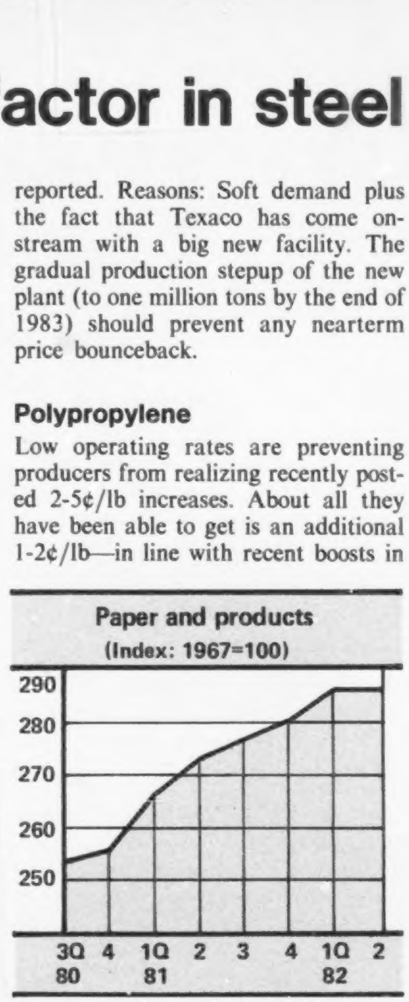
Things could, of course, change if Uncle Sam rules in favor of some of the pending antidumping suits. Indeed, some decisions are possible as early as this month. On the other hand, political pressures may well delay any final rulings until sometime this fall—and even then an all-out domestic victory seems remote.

### Soda ash

Market quotes have dropped $2-4/ton—bringing the going quote down into the $88-90/ton range. Indeed, some deals as low as $85 are being reported. Reasons: Soft demand plus the fact that Texaco has come onstream with a big new facility. The gradual production stepup of the new plant (to one million tons by the end of 1983) should prevent any nearterm price bounceback.

### Polypropylene

Low operating rates are preventing producers from realizing recently posted 2-5¢/lb increases. About all they have been able to get is an additional 1-2¢/lb—in line with recent boosts in propylene feedstock costs. Upshot: The homopolymer grade now goes for 38-40¢/lb. On a more bullish note, the industry still talks in terms of a 3-5¢ gain for the year as a whole—and a much more impressive 10-12% advance in 1983 that would bring operating rates back in the low 1980s range.


Paper and products
(Index: 1967=100)

### Gasoline

The downtrend of early 1982 may be running out of steam. Indeed, some pump quotes are already beginning to edge up—by as much a 3-4¢/gallon. And further modest advances may be in store over the next few months on the combination of the summer driving season, refinery cost pressures, and the gradual drying up of the global oil glut. On the latter score, crude is expected to stabilize in the $32-34/barrel range by late summer or fall.

### Cutting tools

Auto industry buyers report getting as much as 50% off list for such items as standard tape and drills. Bargains are noted also on special carbide and high-speed steel cutting tools where tags are off anywhere from 10 to 17% as vendors vie for what is essentially a very limited market. Adding to the industry pressure are imports—with GM beginning to make its promised purchases of twist drills and other tools from the Peoples Republic of China.

### Tool steel

The situation can only be described as chaotic, with some overseas producers offering metal for as little as one-fourth the asking price of domestic vendors. Rising imports confirm this overseas competition. Incoming shipments in early 1982 ran close to 50% ahead of a year earlier—and according to some industry sources now hold close to half the domestic market. Adding to U.S. mill woes is low consumption which, when combined with imports, has pushed operating rates down to only 45%.

### Polyethylene

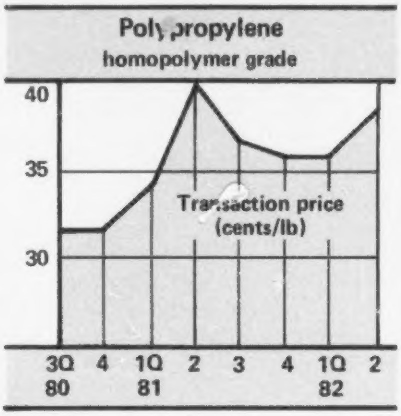
Tags for both low-density (LDPE) and high-density (HDPE) material remain depressed. In LDPE, for example, attempts to post a 3¢/lb boost have failed. Upshot: Line grade material is still available in the low 29-32¢/lb range—some 10¢/lb under levels prevailing just one year ago. And the situation is similar in HDPE. Indeed, tags here have actually edged lower over the past month or so—bringing the key blow molding grade down into the 36-38¢/lb range. Factors behind the easiness: Poor demand—plus the fact that feedstock ethylene has fallen to only 17-18½¢/lb.

### Machinery and equipment

Press for concessions and more liberal credit terms as orders continue to slip. Sign of the times: Overall equipment price averages (as measured by the Labor Department) have dropped for the first time in nearly 10 years. The trend is also confirmed by PMs responding to ***PurchasingWorld***'s new price survey (see page 8). The buyers' market should continue into summer—judging from new capital equipment surveys which suggest little pickup before fall or even winter.

### Paper

Plenty of competition here. Examples: (1) A 5% increase in newsprint scheduled to go into effect this spring has been postponed on a combination of sluggish demand and increasing capacity; (2) a $30/ton hike in linerboard has failed to hold (indeed, some material has recently gone for only $270/ton); and (3) the multiwall paper list ($405/ton) has recently been shaved by as much as $25/ton. But look for some firming in all these lines by the fourth quarter when demand is expected to show some modest improvement.



**Polypropylene**
**homopolymer grade**

### Semiconductors

Plenty of bargains are around, with 64K RAMs available in volume lots for only $5-7/unit. But prices in general are beginning to stabilize after last year's big 10% average decline. Also on a bullish note: Orders are starting to pick up—pushing the industry book-to-bill ratio (new orders booked to old orders shipped and billed) up to near the 1.2 level. Result: The industry is talking of even a small rise in dollar shipments (perhaps as much as 5%) this year—a lot better than 1981 when combined European and U.S. dollar billings fell 7½%.

### Alloying metals

Prices continue to erode. A few examples: (1) Nickel is available on spot

## The zinc price scene

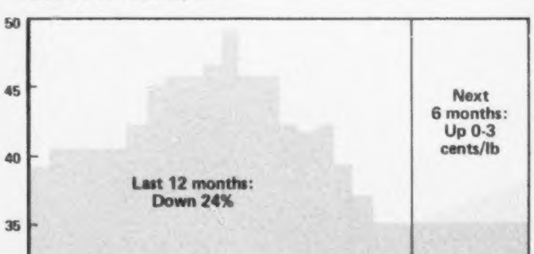
**CURRENT SITUATION: Buyers are firmly in the saddle**—with close to 25% knocked off the going price since last fall. Other recent signs of softness: (1) the even lower bid prices at the Mint's recent tender for the new zinc penny, (2) rising imports (up 47% over the past year), (3) rising producer inventories—now near the 50,000-ton mark here in the U.S., (4) more capacity coming onstream—especially in Mexico, and (5) sharp U.S. and Canadian production cutbacks. **Behind the tumble: The extreme weakness in the metal's two key markets: automotive and construction.**

**DEMAND: Any nearterm pickup is likely to be quite modest.** Thus housing starts, a key barometer of construction demand, will be lucky to top the 1-million-unit mark this year (versus two million as recently as 1978). And domestic auto output will barely reach the 6-million-unit level—far under the 9-million-plus figures of a few years back. **All told, it spells a flat 1982—with U.S. chewup lucky to reach last year's 930,000-metric-ton level.** The longterm demand outlook isn't all that rosy either—with Free World use expected to rise only about 1½-2% a year.

**SUPPLY: Operating rates tell the story**—with North American plants operating at only 70% of their potential. And temporary summer shutdowns could knock another 5-10% off total 1982 output. **And there's plenty of new foreign capacity to offset recently well-publicized U.S. closings**—witness the big tonnages now coming in from Latin America and Canada. Right now, supplies seem adequate to guarantee an ample or even more-than-ample supply through the mid-1980s.

**PRICE OUTLOOK: Further softness can't be ruled out over the next few months.** But some fall firming seems likely—though to nowhere near the 60¢/lb that some producers say they will eventually need to justify new expansion. **Best bet: A slow creep up starting in September or October**—with prices by yearend approaching the 40¢/lb mark.

**Zinc** Cents/lb



# ***Predicts...***

markets for only around $2.50/lb—far under the official $3.20/lb producer list. (2) Silicon metal now goes for as little as 57½¢/lb—down significantly from the previous 61-62¢/lb level—and a large stock overhang should keep prices soft into fall. (3) South African chromite is available for $45-48/metric ton—well under the $50-53 at U.S. contract level. And (4) tungsten metal powder tags have dropped 60¢/lb to $13.10/lb.

### Copper

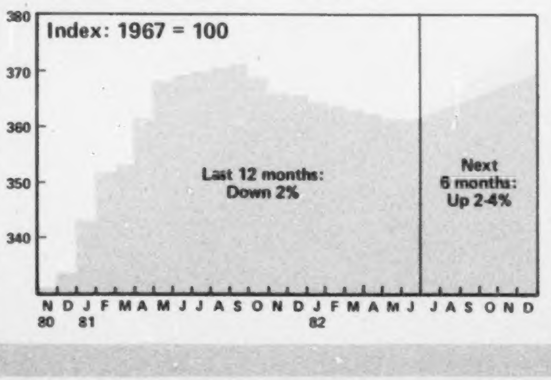
Prices have apparently bottomed out—but at levels which are still well below most producers' costs. The industry breakeven point, for example, is now put at 95¢/lb—with some mixes needing $1/lb or more to get back into the black. One of the problems, aside from disappointing demand, is the refusal of Third World producers to cut back. This steady flow of foreign metal will continue to offset U.S. cutbacks and thus limit any second half price rise. It's highly unlikely quotes will climb back up to breakeven points before yearend or early 1983.

### Aluminum

Not even new production cutbacks (U.S. producers are operating at only 65% of capacity) are stemming the slide. Some signs of weakness: (1) LME and spot prices 25¢/lb or more under official producer ingot lists, (2) strong discounting on the part of producers, and (3) still rising inventories—with Free World totals more than 20% above yearago levels. Demand, too, is sluggish—with total 1982 U.S. usage expected to fall several hundred thousand tons under last year's 6.7-million-ton level. But 1983 should be better—with an 8% or so demand boost enough to bring prices up a lot closer to producer lists by next spring or summer. ***PW***

## The chemicals price scene

**CURRENT SITUATION: Markets remain hotly competitive**—with prices edging lower now for some nine months running (see graph). Hardest hit have been petrochemicals such as ethylene (off more than 20% since the first of the year), ethanol (down 10% over the same period), methanol (down 12%), phthalic anhydride (down 9%), styrene (down 9%), and vinyl chloride (down 12%). Plastics, too, have dropped sharply. Ditto, chlorine. **And while there are now some signs of a bottoming out, the industry has a long ways to go to regain the price, demand, and profit levels of early last year.**



Industrial chemicals

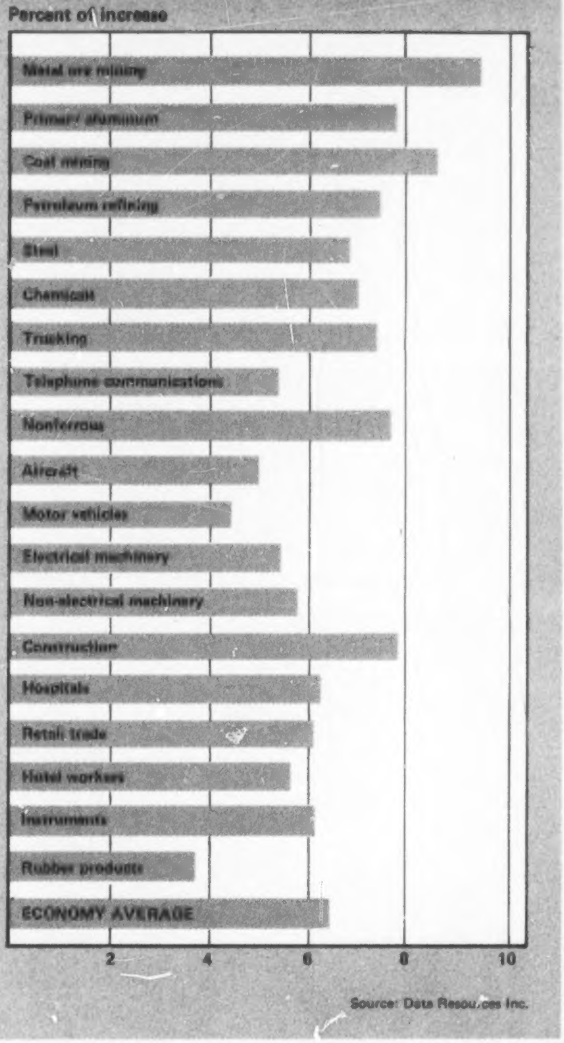
**DEMAND: A modest pickup may now be in the making for the second half.** But don't expect miracles. **At best, the industry may rack up a 1-2% overall 1982 advance**—as early 1982 losses (output was off 3-5% in the first few months vis a vis a year earlier) are slowly recovered. Plastics will probably fare best. But inorganics like chlorine will continue to sag. Next year, however looks a lot more bullish—**with gains approaching the 8% mark possible.**

**SUPPLY: No problems anywhere—as the industry's overall operating rate hovers around the low 70% level.** Indeed, even with some second-half improvement, use rates won't advance much beyond the low 70s—not only because of less-than-sensational demand but because new capacity continues to come onstream—with these additional potentials anticipated for 1982: plastics (6%), organic chemicals (3%), and inorganics (1-2%).

**PRICE OUTLOOK: Some modest improvement is almost certain in the months immediately ahead.** Reason: somewhat improved ordering and stabilizing or slightly firmer oil tags. **Heftiest increases will be in cost-squeezed areas where prices have been softest in recent months**—namely plastics and petrochemicals. Add in fractional boosts in other areas, and overall tags should be up 2-4% by yearend. And next year—despite more-than-ample capacity—**an improving business climate should permit an overall hike in the 6-8% range.**

# Labor rate increases will ease

## —but not enough to impact inflation much



**Unit labor costs: Still too high for comfort**

Compound annual rate of increase, 4th qtr 1981 through 4th qtr 1986

Source: Data Resources Inc.

Labor costs may be moderating a bit. But don't expect miracles—especially as far as any overall impact on inflation is concerned.

So warns the econometric consulting firm Data Resources, Inc. (DRI).

Pay increases will continue at a relatively fast clip in most industries through the mid-1980s (somewhere near 8.1% for the economy as a whole). And any productivity offset will remain quite moderate (only about 1.7% per year on average).

Upshot: Unit labor costs—while down a bit from the lofty levels of the past few years—will still be way too high for comfort. Looking at the overall economy again, for example, DRI analysts put the rise in this key indicator of future price pressures at a 6.4% compound annual rate.

True, some industries will fare better than others (see accompanying chart for details). But only two areas (rubber products and motor vehicles) are expected to escape with a less-than-5.5% average annual unit labor cost advance over the next few years.

And in a few instances, notably mining and construction, these costs should remain at disturbingly high levels: 7.8% in the case of construction, 8.5% for coal mining, and an even heftier 9.4% for metal ore producers.

Much of the blame in these three sectors can be traced back to productivity performance. In the case of metal ore and coal mining, for example, only 0.1% and 0.4% annual efficiency gains are envisioned. And the story is much the same in construction, where the annual rate of productivity increase is put at only 0.8%.

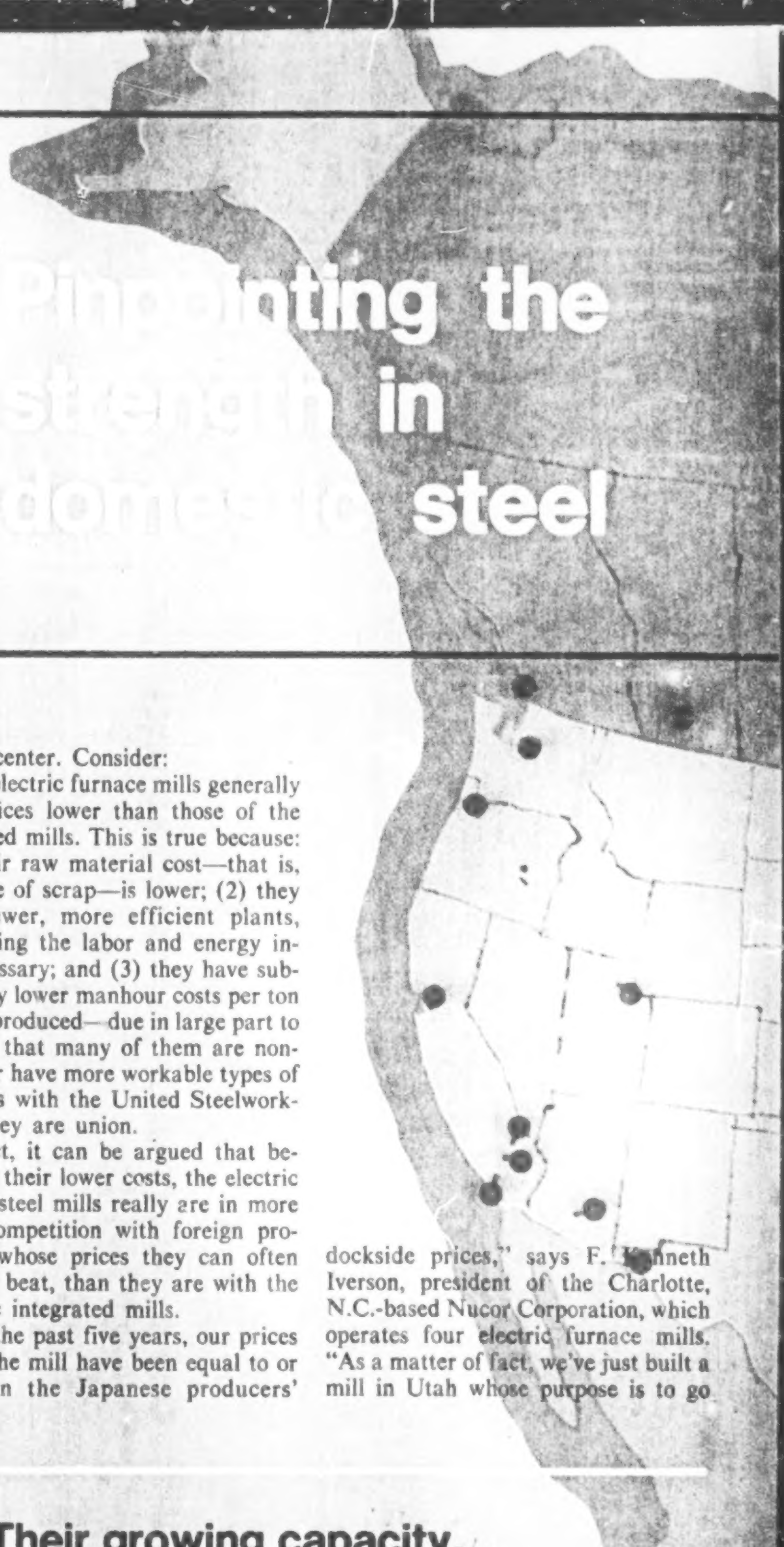
That's not to say, of course, that there aren't some bright spots. Both the telephone communications and aircraft categories are expected to continue to make significant positive gains in labor productivity through 1986—with the compound annual rates of advance in these sectors put at 4.7% and 4.1%, respectively. Reason: The continued introduction of new, more sophisticated capital equipment—the type which can be expected to help labor operate with increasing efficiency.

As a result, management in the telephone communications and aircraft industries can live with their workers' earnings escalating quite rapidly (compound annual rates of 10.6% and 9.4%, respectively) while keeping the rise in their unit labor costs among the lowest of the monitored sections (annual rates of 5.6% and 5.1%).

Two other sectors—the steel and motor vehicle industries—can also look forward to some progress on the labor cost front. Both are spending large amounts of money to replace and update capital equipment. The more modern equipment is expected to make workers in these sectors far more productive than they've been in recent years. In fact, the productivity measures of steel and auto workers are projected to grow at rates of 2.5% and 3.8%, respectively. This would hold the unit labor cost growth rates in these two industries down to 6.6% and 4.4%.

All of these factors will help. (The overall average 6.4% annual rate of advance in unit labor costs is considerably better than the 10.9% recorded over the 1976-81 period.) But this average rate is still nowhere near the low levels of the 1950s and 1960s.

Even this modest progress would seem to guarantee against another bout of double-digit inflation. On the other hand, it still suggests some fairly strong upward price pressures. DRI puts the annual rate of advance in average industrial tags at near 8% over the next few years. ***PW***



# 'Minimills': Pinpointing the strength in domestic steel

**By John Fitts, technical editor**

**Their growing capacity, low costs, and high productivity make the so-called "minimills" prime potential sources for the steel buyer.**

They sit, most of them, in fields that only two or three decades ago were forest or farmland. In size, they are almost quaint when compared to the massive integrated steel mills of the nation's older, heavily industrial centers.

But the "minimills," as they are commonly called, have a capacity trend directly opposite that of their larger cousins. In fact, many executives would argue that the term *minimill* is no longer an accurate one, since most of these electric furnace-based steel plants now have the capacity to produce more than 1½ million tons of metal per year.

And between last year and the end of 1982, according to the Institute for Iron and Steel Studies (IISS), the electric furnace mills will increase their production capability by another 1.2 million net tons, raising their total capacity to 21.1 million net tons per year. This will nearly offset the 1.8 million net tons of capacity that the integrated mills are expected to lose during the same period.

There are more than 65 domestic electric furnace mills now in operation, scattered throughout the United States, and they account for some 15% of total steel shipments. By the year 2000 they will account for more than one-quarter of the total supply.

## Lower prices, attentive service

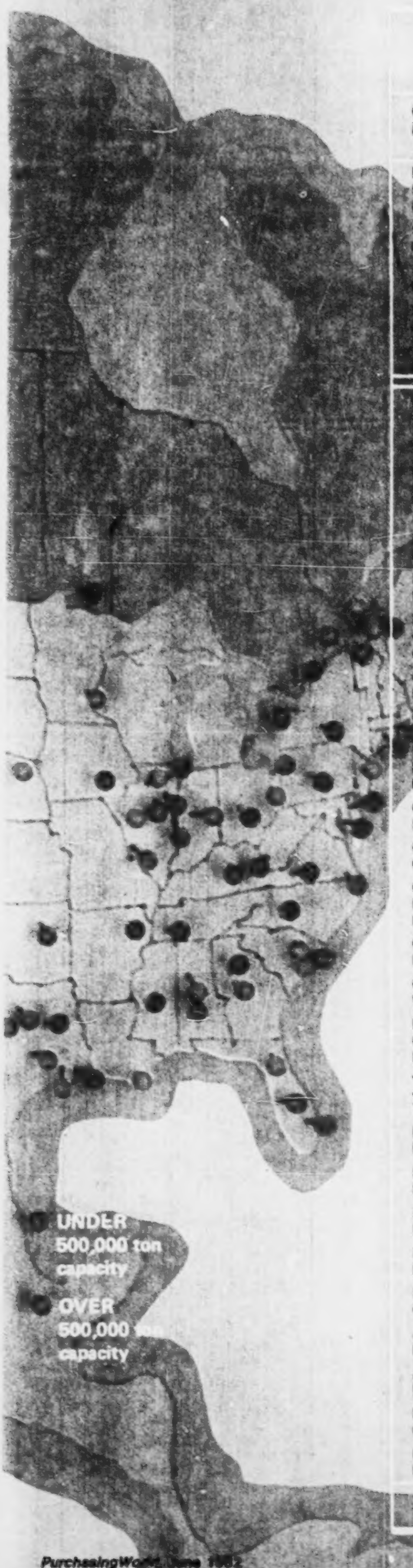
For the purchasing manager who buys steel, an electric furnace mill can offer several advantages over an integrated mill or, in some cases, even a service center. Consider:

■ The electric furnace mills generally offer prices lower than those of the integrated mills. This is true because: (1) Their raw material cost—that is, the price of scrap—is lower; (2) they have newer, more efficient plants, minimizing the labor and energy inputs necssary; and (3) they have substantially lower manhour costs per ton of steel produced—due in large part to the fact that many of them are non-union, or have more workable types of contracts with the United Steelworkers if they are union.

In fact, it can be argued that because of their lower costs, the electric furnace steel mills really are in more direct competition with foreign producers, whose prices they can often equal or beat, than they are with the domestic integrated mills.

"For the past five years, our prices F.O.B. the mill have been equal to or less than the Japanese producers' dockside prices," says F. Kenneth Iverson, president of the Charlotte, N.C.-based Nucor Corporation, which operates four electric furnace mills. "As a matter of fact, we've just built a mill in Utah whose purpose is to go

BEST AVAILABLE COPY



# Ferrous Scrap/Sponge Iron-based Steel Companies

| Company and Plant Locations | Raw Steel Capacity Net Tons |
|---|---|
| BURLINGTON STEEL DIVISION | 320,000 |
| Slater Steel Industries | |
| Hamilton, Ont. | |
| COURTICE STEEL LTD. | 70,000 |
| Bowmanville, Ont. | |
| INTERPROVINICAL STEEL & PIPE | 750,000 |
| Regina, Sask. | |
| IVACO ROLLING MILLS | 450,000 |
| [illegible] | |
| [illegible] ONTARIO STEEL CO. LTD. | 900,000 |
| [illegible] | |
| MANITOBA ROLLING MILLS | 250,000 |
| Selkirk, Man. | |
| SIDBEC DOSCO LTD. | 1,525,000 |
| Contrecoeur, Que. | 1,100,000 |
| Longueuil, Que. | 250,000 |
| Montreal, Que. | 175,000 |
| WESTERN CANADA STEEL LTD. | 320,000 |
| Calgary, Alta. | 100,000 |
| Vancouver, B.C. | 220,000 |
| Canada Ferrous Scrap/Spronge Iron-based Steelmakers Plant Capacity, Total | 4,585,000 |

| Company and Plant Locations | Raw Steel Capacity Net Tons |
|---|---|
| [illegible] STEEL & WIRE DIV. | 300,000 |
| [illegible], CA | |
| ATLANTIC STEEL CO. | 700,000 |
| Atlanta, Ga. | 450,000 |
| Cartersville, Ga. | 250,000 |
| AUBURN STEEL CO. | 240,000 |
| Auburn, N.Y. | |
| BAYOU STEEL CORP. | 650,000 |
| Laplace, La. | |
| BORDER STEEL MILLS | 200,000 |
| El Paso, Tex. | |
| BW STEEL INC. | 150,000 |
| Calumet Steel Co. | |
| Chicago Heights, Il. | |
| CASCADE STEEL ROLLING MILLS | 275,000 |
| McMinville, Or. | |
| CECO CORP. | 370,000 |
| Lemont Mfg. | 220,000 |
| Lemont, Il. | |
| Milton Mfg. | 150,000 |
| Milton, Pa. | |
| CHAPARRAL STEEL CO. | 950,000 |
| Midlothian, Tx. | |
| CHARTER ELECTRIC MELTING INC. | 120,000 |
| Chicago, Il. | |
| CONNORS STEEL CO. | 575,000 |
| Birmingham, Al. | 275,000 |
| Huntington, W.V. | 300,000 |
| CONTINENTAL STEEL CORP. | 650,000 |
| Kokomo, Ind. | |
| COPPERWELD STEEL CO. | 824,000 |
| Warren, Oh. | |
| FLORIDA STEEL CORP. | 1,578,000 |
| Charlotte, N.C. | 280,000 |
| Indiantown, Fl. | 218,000 |
| Jackson, Tn. | 400,000 |
| Jacksonville, Fl. | 400,000 |
| Tampa, Fl. | 280,000 |
| HAWAIIAN WESTERN STEEL LTD. | 60,000 |
| Ewa, Hi. | |
| HURRICANE INDUSTRIES INC. | 100,000 |
| Sealy, Tex. | |
| ILLINOIS BIRMINGHAM BOLT CO. | 100,000 |
| Kankakee, Il. | |
| INDUSTRIAL SIDERURGICA INC. | 120,000 |
| Bayamon, PR | |
| INTERCOASTAL STEEL CORP. | 80,000 |
| Chesapeake, Va. | |
| JARSCO | 120,000 |
| Roebling, N.J. | |
| JUDSON STEEL CORP. | 150,000 |
| Emeryville, Ca. | |
| KENTUCKY ELECTRIC STEEL CO. | 250,000 |
| Coalton, Ky. | |
| KEYSTONE GROUP | 600,000 |
| Peoria, Il. | |
| KNOXVILLE IRON DIV. | 210,000 |
| Knoxville, Tn. | |
| KORF INDUSTRIES INC. | 1,550,000 |
| Georgetown Steel Corp. | 700,000 |
| Georgetown, S.C. | |
| Georgetown-Texas Steel | 850,000 |
| Beaumont, Tx. | |
| LACLEDE STEEL CO. | 800,000 |
| Alton, Il. | |
| MARATHON STEEL CO. | 175,000 |
| Tempe, Az. | |
| MARION STEEL CO. | 250,000 |
| Marion, Oh. | |
| MISSISSIPPI STEEL DIV. | 180,000 |
| Jackson, Ms. | |
| NEW JERSEY STEEL CO. | 200,000 |
| Sayerville, N.J. | |
| NORTH STAR STEEL CO. | 1,140,000 |
| Monroe, Mi. | 400,000 |
| St. Paul, Mn. | 440,000 |
| Wilton, Ia. | 300,000 |
| NORTHWEST STEEL ROLLING MILLS | |
| Seattle, Wa. | 240,000 |
| NORTHWESTERN STEEL & WIRE | |
| Sterling, Il. | 2,400,000 |
| NUCOR CORP. | 2,000,000 |
| Darlington, S.C. | 500,000 |
| Jewett, Tx. | 550,000 |
| Norfolk, Ne. | 550,000 |
| Plymouth, Ut. | 400,000 |
| OWEN ELECTRIC STEEL CO. | 100,000 |
| Cayce, S.C. | |
| RARITAN RIVER STEEL | 600,000 |
| Perth Amboy, N.J. | |
| RAZORBACK STEEL CO. | 120,000 |
| Newport, Ar. | |
| ROANOKE ELECTRIC STEEL | 300,000 |
| Roanoke, Va. | |
| ROSS STEEL WORKS INC. | 100,000 |
| Amite, La. | |
| SHEFFIELD STEEL CORP. | 340,000 |
| Sand Springs, Ok. | |
| SOULE STEEL CORP. | 120,000 |
| Long Beach, Ca. | |
| SOUTHERN UNITED STEEL CORP. | 100,000 |
| Birmingham, Al. | |
| STRUCTURAL METALS | 360,000 |
| Seguin, Tx. | |
| TENNESSEE FORGING STEEL CORP. | 160,000 |
| Harriman, Tn. | |
| TEXAS STEEL CO. | 200,000 |
| Fort Worth, Tx. | |
| WITTEMAN STEEL MILLS | 50,000 |
| Fontana, Ca. | |
| YOUNGSTOWN STEEL CORP. | 240,000 |
| Struthers, Oh. | |
| U.S. Ferrous Scrap/Sponge Iron-based Steelmakers Plant Capacity, Total | 21,107,000 |

Source: Institute for Iron and Steel Studies

BEST AVAILABLE COPY

after the West Coast steel market—which the Japanese currently have about half of."

- In the same vein, the electric furnace mills were quick to adopt the continuous casting process when it was introduced in the early 1960s. The use of continuous casting gives the mills a much better yield than did the older ingot-mold process—on the order of 90% yield as opposed to about 74%—and it markedly increases their energy efficiency. Today, many of the integrated mills are adding continuous casting facilities; the electric furnace mills have had them for years.
- The electric furnace mills remain regional, and most produce only one type of product—such as angle or bar in various dimensions or metallurgies—at any one location. This limited product mix gives them an added cost advantage over the integrated mills, because it of course further restricts their costs.
- Because of their regionality, the electric furnace mills usually can provide steel at a lower transportation cost to the customer.
- These smaller mills are likely to provide greater technical assistance to the smaller steel user. There is one point for buyers to remember, however: The capabilities of one electric furnace mill may be substantially different from those of another. If one mill cannot produce steel to your specifications, don't assume that none can. Instead, shop around.

With a few exceptions, the electric furnace mills are on sounder financial footing than their larger counterparts. In fact, at a time when the "Big Six" steelmakers are reporting quarterly losses, a number of the electric mills are experiencing double-digit revenue and earnings gains. Three of the larger companies, including Nucor, Texas Industries, and Florida Steel, reported net income gains in 1980 averaging 25.2% over 1979, and one of them, Nucor, reported a return on equity during 1980 of 37.5%.

An exact financial profile of the electric furnace mill industry is difficult to construct, since many of them are privately held, or are parts of larger corporations.

## A child of changing technology

The electric furnace mills trace their origins to the 1950s and 1960s, the time when the integrated mills were making the transition from the old open hearths to basic oxygen furnaces (BOF).

The significance of the changeover for today's electric mills lies in the fact that, while the open hearth used a charge of about 60% scrap, the BOF used only about 30% scrap. This led, obviously enough, to growing piles of junk.

Technological developments were at work, and at about the same time, the electric furnace—which used a charge entirely of scrap and was much less capital intensive than a BOF—entered the picture. Thus, there came to be a plentiful supply of raw material, and a relatively inexpensive way to refine it. The minimill, as then they truly were, was born.

In the early days, the mills were concentrated in the South and West, and they produced only reinforcing bar for their regions' construction industry, which no doubt was enjoying the fruits of the postwar interstate highway building boom.

But over the years, the product mix of the electric furnace mills *as an industry* has expanded (largely the result of the development of sophisticated rolling equipment, principally from Europe), so that today the industry offers nearly every shape and angle available from the integrated mills. The mills are restricted in that they are not able to produce flat rolled products or heavy structurals, although some of them do manufacture plate.

## Similar price pressures

In a downturned economy the smaller mills come under price pressures similar to those encountered by the integrated mills, but they don't feel those pressures as strongly—due mostly to their limited product line and lower operating costs. And if it becomes necessary, the electric furnace mill can operate on lower profit margins than the larger mills, because of their lower overhead costs.

"It's certainly painful for an electric furnace-based mill to cut its margins during a downturn, but the situation isn't so nearly fatal as it can be with an integrated mill," says Richard Deily, executive director of the IISS.

## A phoenix in the industry

**On Monday, March 15, the Penn-Dixie Steel Corporation ceased to exist. And its employees, stockholders, and management couldn't be happier.**

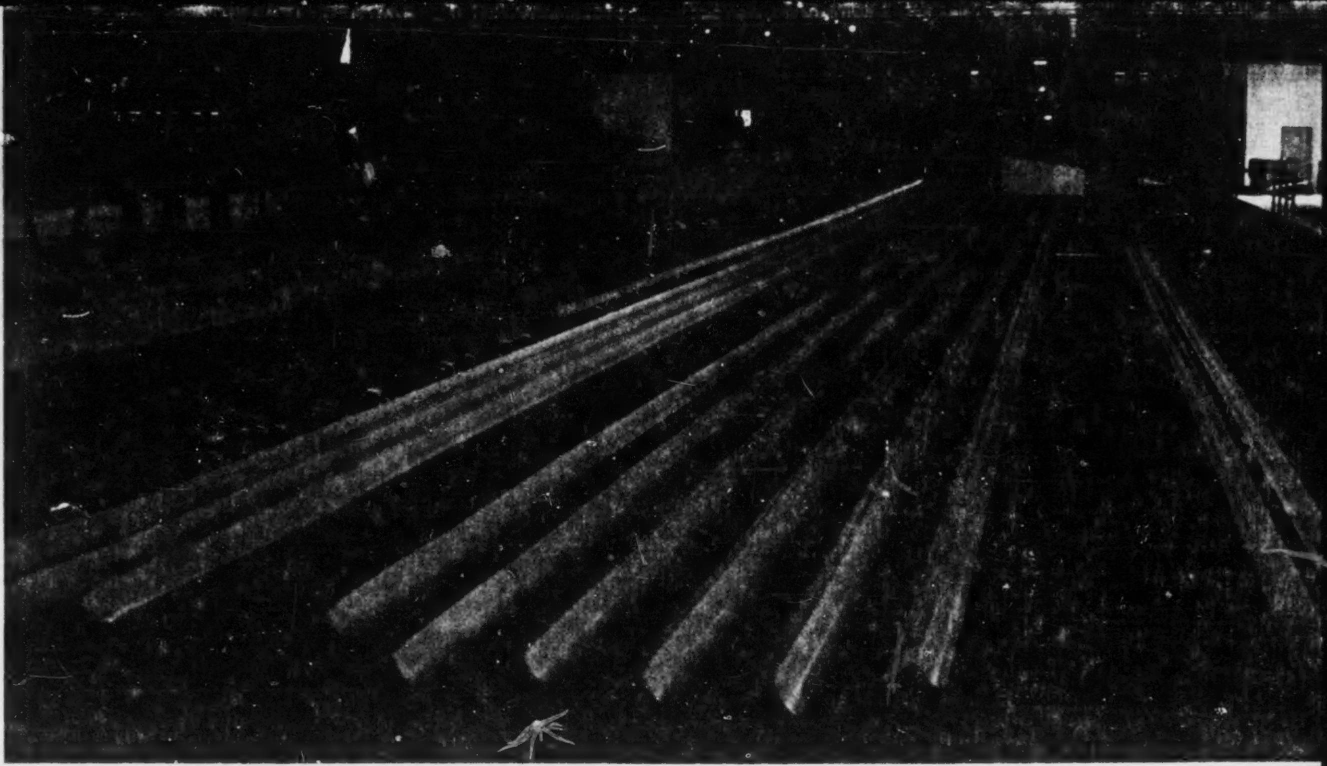
That Monday was significant for all of them. It was the day when their company reassumed the name of its predecessor, Continental Steel Corporation, the day when it emerged from Chapter XI reorganization with its creditors fully compensated, and the day when it took the first step toward recovery of its status and pride.

This is the story: Penn-Dixie Steel was a Kokomo, Ind.-based electric-furnace wire mill and a unit of the parent Penn-Dixie Industries, a holding company. During most of its life, the company that eventually became Penn-Dixie Steel was profitable and worked hard to maintain its reputation for producing quality wire, but in the 1970s, things began turning sour.

That was the time when Continental Steel was acquired by Jerome Castle, a stockbroker whose interest, it seems now, was more in building a quick fortune than in properly managing his individual companies. Castle fired the management of his Kokomo wire mill and began funneling its profits into the bank account of the holding company, rather than reinvesting them in the business.

There was nothing illegal about this, but he finally slipped up. Castle and a partner purchased 5000 acres of pretty much worthless Florida land and sold 4000 of them to the holding company at a nice profit for themselves. That's when federal agents stepped in.

Castle was convicted of fraud, a felony, and went to prison.



In addition, he noted, a minimill's price for a particular product often becomes the prevailing price in that area.

## Purging the residuals

It is usually not difficult for an electric furnace mill to hold the same metallurgical tolerances as the integrated mills do, because a charge of scrap can be "cleaned" to remove most residual elements. But copper and nickel residues pose an important exception; they cannot be effectively purged.

Therefore, unless a mill is very careful to segregate the scrap, or it adds pellets of directly reduced iron (DRI) to the charge, it will not be able to produce products which must be redrawn or heat treated.

DRI is produced in a gas-fired process that purges the oxygen from iron ore, reducing it to pure iron, and it can be used in electric furnaces in place of scrap. This, of course, eliminates the problem of residues found in scrap metal. But there presently is a big problem with DRI, and it gets back to the word *gas*. The price of gas prevents directly reduced iron from being cost competitive with scrap.

DRI could be produced in a coal-fired process that would make it competitive, but there are not yet any domestic companies producing it that way. At least one small coal-fired facility is expected to begin operation within the next five years, however, and from then the use of DRI by electric furnace mills will become increasingly common.

## Scrap in ample supply

Ferrous scrap will be in ample supply throughout at least the remainder of this decade, most authorities agree. As the demand for it increases so will the price, but supplies are believed sufficient to support an expansion of electric furnace mill capacity to 30 or 35 million net tons per year.

"We have some 16 million net tons of steel being imported into this country every year, plus another five to six million tons of iron-units coming in in the form of finished goods such as autos," Iverson says. "That's a total of 21 or 22 million tons, and we only export about 8 million tons—so our net gain of potential scrap is about 13 million tons per year."

In the years ahead, the former "minimills" are likely to use their ample raw material supplies and relatively low operating costs to expand into the areas of higher alloy formulations and expanded product lines. ***PW***

But Penn-Dixie Industries was a shambles. At this point the Securities and Exchange Commission (SEC) stepped in, overseeing the creation of a new board of directors, and in April 1980 the company filed for Chapter XI. This past March 15, Penn-Dixie Industries and Penn-Dixie Steel were merged into the resurrected Continental Steel Corporation.

What Tom Sigler, president of Continental Steel, and his team face is a rebuilding process. They must work to correct the fact that no money has been spent modernizing the mill in nearly a decade, and they are getting at it with confidence.

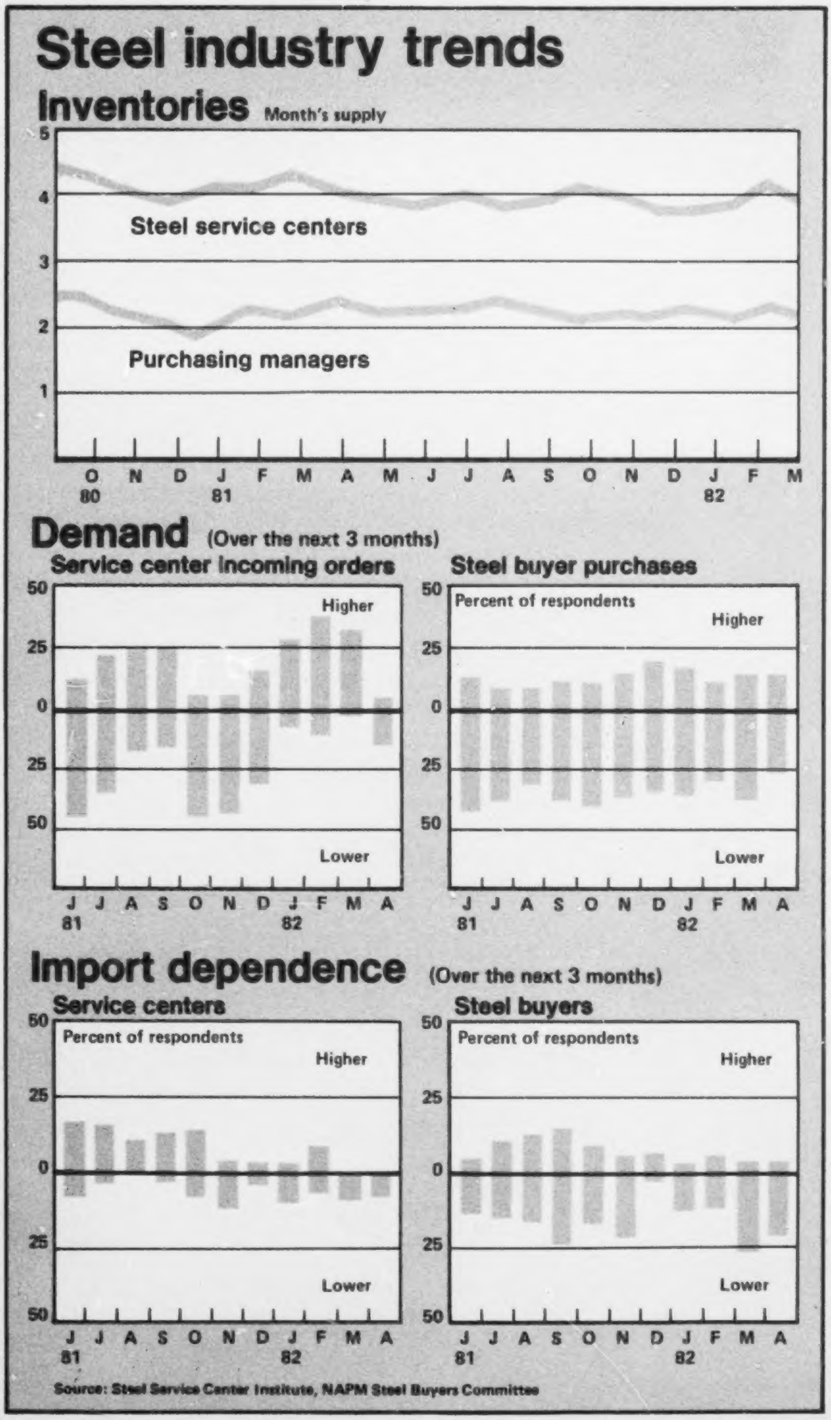
The next two years, he says, will be crucial. During that time the company will install a continuous casting line—which many other electric furnace mills have had for years—and will invest heavily in the modernization of the rod mill.

# Steel outlook: no nearterm pickup

Still no sign of any steel pickup. That's the message from the latest surveys conducted by both the Steel Service Center Institute (SSCI) and the NAPM steel buyers' committee.

On the PM front, for example, the number expecting to increase steel buys over the next three months outnumber those anticipating additions by about a 2:1 margin—the same disturbing ratio that has prevailed since February.

And the picture is even bleaker when it comes to distributors. There actually has been a deterioration in the nearterm outlook. In early 1982, more than 30% were looking for an increase in new orders, but the figure has dropped down to 5% during the latest reported period.



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

Service center sentiment is perhaps best expressed by Andrew G. Sharkey, SSCI president. As he put it, "Automotive and housing remain deeply depressed. As a result, those companies that are in the business of directly supporting these two economic giants also remain in a negative position."

Equally significant is the ripple effect on other industries. As of now, there are only individual pockets of strength being reported back to the SSCI—and they are not sustained or widespread.

In any event, SSCI figures suggest that every geographic region in the country is feeling the effects of the recession. Even those areas in the Sunbelt that heretofore had above-average performance are now reporting a decline in business.

One result: Further downward revisions in SSCI shipment forecasts. As of last report, the feeling is that some slippage from last year is inevitable—though perhaps not enough to erase last year's modest 7% gain.

Given the far-from-buoyant nearterm demand outlook, it is also not surprising that both service centers and buyers are still concentrating on paring stocks. There were minimal declines in both areas (in terms of days' supply) last month—and more may be on the way.

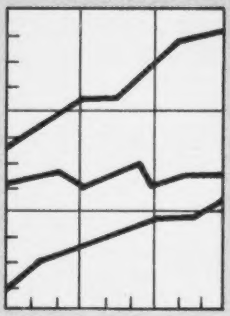
For instance, roughly one out of every four buyers now regards his holdings as too high (not one feels they're too low). More significantly, a hefty 53% plan to reduce stocks during the next six months.

Distributors tell much the same inventory story. An even larger 67% say their holdings are too high)—with nearly three out of every four planning on further paring.

Another factor behind the inventory retrenchment—aside from poor demand—is the ready availability of all products. Not one product is on the shortage list.

There's also general agreement on low-priced imports. Some 88% of the steel buyers note prices under domestic levels—with 14% dubbing the price break as substantial. And about 60% of the queried distributors say foreign carbon steel is available 10% or more under domestic levels. A the same time, 19% are telling the same story for stainless. ***PW***

# Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 64.00 | 74.00 | 106.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 63.00 | 83.00 | 93.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 60.00 | 63.00 | 107.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.620 | 0.593 | 0.790 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.550 | 0.523 | 0.690 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.58 | 0.55 | 0.75 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.350 | 0.350 | 0.445 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.240 | 0.260 | 0.370 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.250 | 0.270 | 0.410 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.130 | 0.130 | 0.155 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.14 | 0.15 | 0.24 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 8.00 | 8.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 7.00 | 7.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.080 | 0.080 | 0.145 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.13 | 0.13 | 0.37 |

# How's your standard of living

Inflationary pressures may be slowing down. But PMs and other middle managers still need a fairly hefty salary to maintain a decent standard of living these days. (A "decent standard of living," the federal government says, includes a home, a car, a vacation, and an occasional night out on the town.)

New government figures suggest that this kind of life for a family of four now takes an income of more than $38,000 a year.

Here's a rundown, with the minus and plus percentages signifying how each metropolitan area rates relative to the national average:

Philadelphia, +2%; Pittsburgh, −4%; Buffalo, +2%; Boston, +18%; New York City, +24%; Chicago, −2%; Cincinatti, −4%; Cleveland, −2%; Detroit, −1%; Kansas City, −3%; Milwaukee, +4%; Minneapolis, +2%; St. Louis, −6%; Atlanta, −9%; Baltimore, 0; Dallas, −11%; Houston, −9%; Washington, D.C., +8%; Denver, −3%; Los Angeles, +1%; San Francisco, +7%; Seattle, −1%, Honolulu, +32%; and Anchorage, +19%.

As for specific outlays, housing accounts for 22% of the national average household budget. Personal income taxes take an even larger 24½%. Other major expenditures: food, 19%, and transportation, 8%. ***PW***

# New govt. statistics on materials inventories

Alert your planning staff to a new government statistical series: purchased materials inventories expressed in terms of constant dollars.

The constant-dollar concept (which translates inflated-dollar readings into real or tonnage figures) has been used before for inventories, but only for total manufacturing stocks (including goods in process, finished goods, and purchased materials).

The new split out of purchased materials is particularly significant for purchasing managers, because it zeroes in on that sector for which they have prime responsibility.

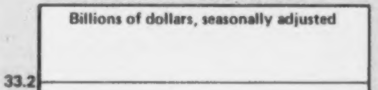
The accompanying graph based on the new statistics indicates that purchasers have done quite well in avoiding any buildup. Indeed, durable purchased material stocks have actually been edging lower since late last year.

Since comparable sales data are also available, it's an easy matter to calculate tonnage stock-sales ratios (a proxy for days' supply). And here, too, the news is pretty good. These ratios are beginning to head down, paving the way for an order rebound when business starts improving.

In addition, industry-by-industry breakdowns are also available on the basis of real, or constant, dollars. Thus, it is now possible to get month-by-month trends for purchased materials inventories in such key areas as metals, machinery, paper, chemicals, and others. ***PW***

**PM inventories**

**(Durable purchased materials in constant 1972 dollars)**

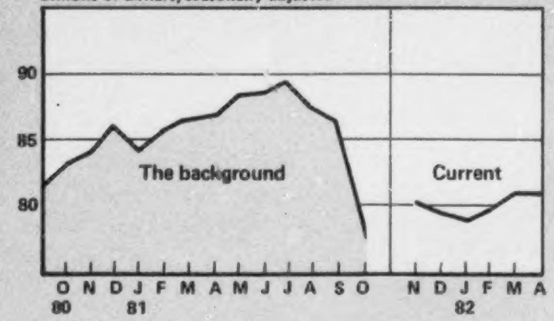


Source: Commerce Dept., PW estimates

## Leading indicators

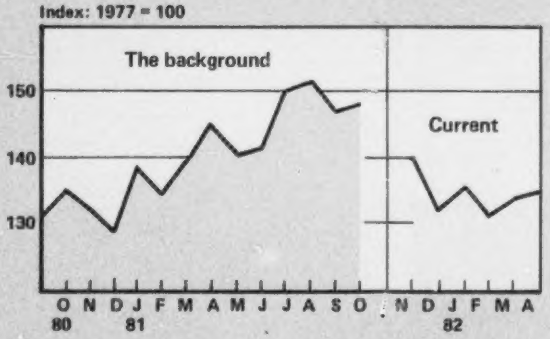
### 1. New durable orders

Billions of dollars, seasonally adjusted



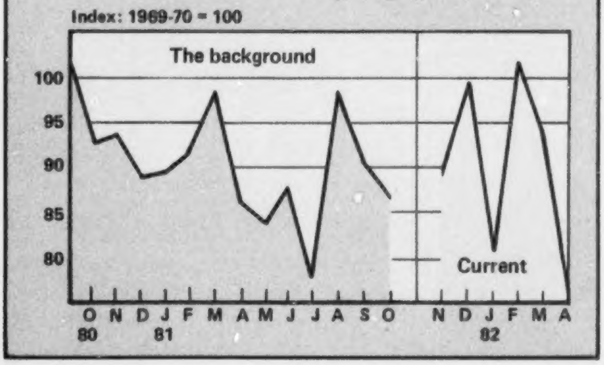
### 2. Industrial distributor sales

Index: 1977 = 100



### 3. Consumer buying plans

Index: 1969-70 = 100



**Business in brief:**

# Recession's nadir may be near

The economy may finally be ready to bottom out—if not this month, then certainly sometime in the third quarter.

One indicator of the change is the very sensitive NAPM Business Barometer (see graph) which has finally begun to move up from its recent low point. The latest reading is still below the neutral "50" mark, but now there are signs that this "magical 50," which separates overall decline from overall growth, may not be too far away.

The same seems to be true of the government's index of leading indicators—another widely monitored barometer of nearterm activity. While off for the eleventh straight month, the latest decline was relatively small, thus prompting Commerce Secretary Malcolm Baldridge to predict that this key barometer would be back in the plus column within months.

There are some other signs of turnaround, too, not the least of which will be the huge infusion of purchasing power into the economy this summer in the form of the scheduled 10% personal income tax reduction and a 7.4% Social Security increase.

The former should contribute $32 billion at annual rate to potential consumer spending, and Social Security boosts will mean an additional $16 billion (also at annual rate). All told, that's a $48 billion hypo to consumers, and it's inconceivable that it won't have some impact.

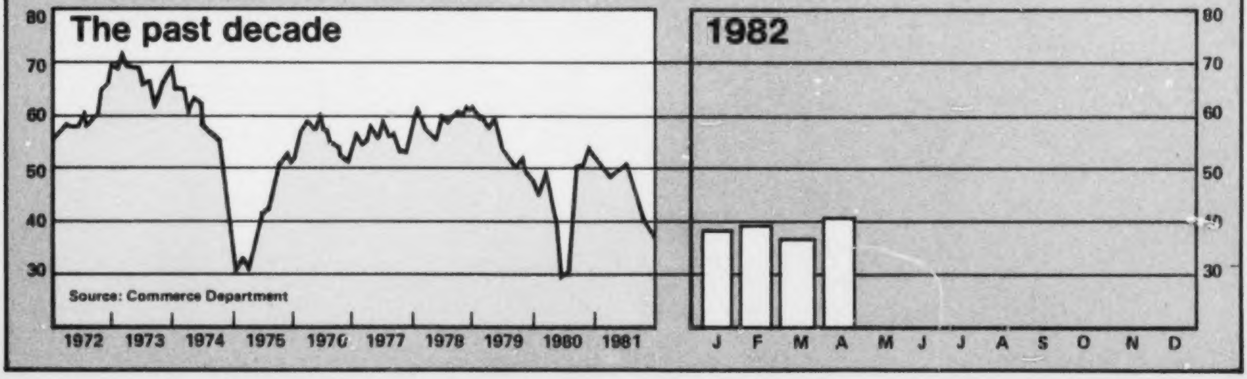
The new order pace will have to quicken substantially, however. There's a lot of ground to be made up. Right now, dollar totals are off about 8% from last year's peaks (see top graph), with real levels down even more.

Industrial distributer sales, a lead indicator of factory managers' short-term thinking on output, would also have to improve considerably. Indeed, a 10-15% rise in this key index (center graph) would probably be needed to support even a modest production pickup.

Finally, consumers themselves will have to get into the act. Current buying plans are hardly encouraging (lower graph). And it remains to be seen how much of this new $48 billion boost in purchasing power will be translated into actual spending. ***PW***

## NAPM business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



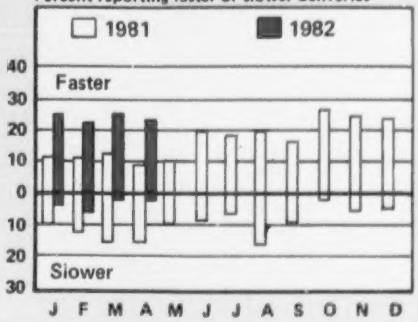
Source: Commerce Department

## PW monthly procurement status report

Source: NAPM

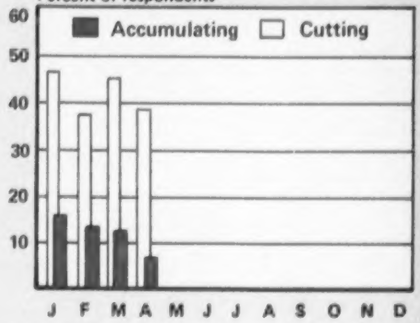
**Delivery performance**

Percent reporting faster or slower deliveries



**Inventory strategy**

Percent of respondents



# Modest stretchouts offset few declines in reported leadtimes

Leadtimes seem to be about as low as they're likely to go. Some small declines are still being reported. But now they're being offset by a few modest stretchouts as razor-thin vendor stocks make for scattered delivery delays.

The picture is perhaps best summed up by ***PW***'s exclusive leadtime index where the current "50" reading suggests that the average wait is unchanged from month-earlier levels.

This impression is further confirmed by a leveling off in the number of PMs noting faster deliveries. The 24% reporting a speedup last month, for example, is pretty much in line with the 26% reading of the previous 30 days.

On the other hand, buyer confidence on availability continues to grow—as witnessed by the fact that only 15% of surveyed PMs are now committing 90 days or more in advance. That's the lowest such reading in years—and far under the 25% or so figures noted just last spring.

Equally reassuring is the small number of items listed in short supply. Actually there are only two noted in the latest NAPM Business Survey report: bearings and caustic soda—and the latter is due more to a cutback in coproduct chlorine than to an inherent capacity bottleneck. ***PW***

## Leadtimes and availability

**Chicago:** No sweat as these low leads (in weeks) prevail: steel c-r sheets (4-5), heavy steel plate (2), steel structurals (2), aluminum sheet (8), aluminum angles and bars (4), brass sheet and coil (5), softwood framing (1½), valves and fittings (1), motors (12-14), connectors (10-14), and transformers (8-12).

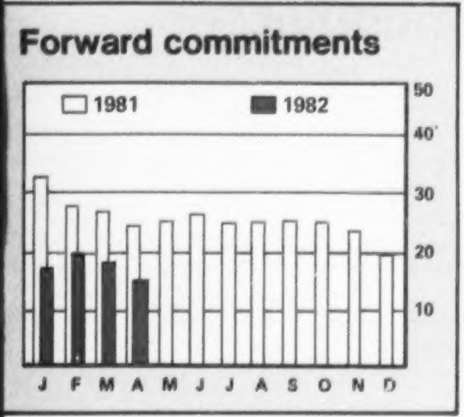
**Cleveland:** A few fractional declines. Thus polyethylene and PVC are now available in only 2 weeks. Cold-finished aluminum is also down a bit (to 6-8 weeks). Unchanged are folding cartons (4), alloying materials (on demand), hardwood and softwood lumber (3), skids (3), plastic packaging (2-3), and strapping (2-3).

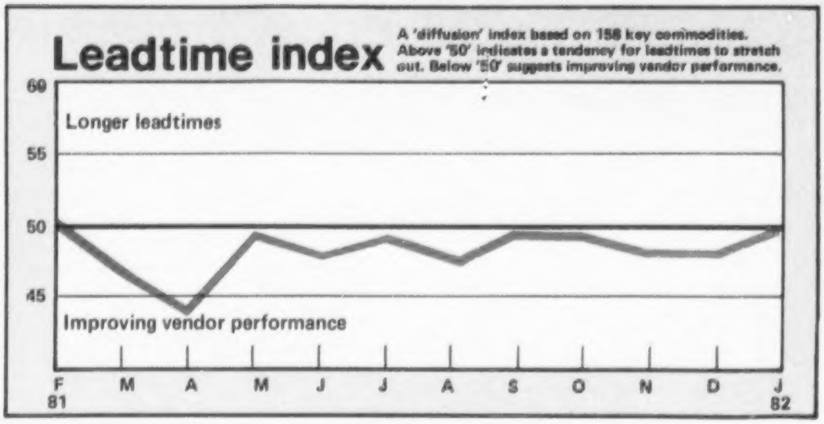
**Houston:** Service center steel is down a bit (to 1-2 weeks). Ditto, corrugated boxes (to 2-4) and tungsten carbide parts (to 14-16). Also leads are tending more and more to the low and where ranges are given—especially for heat exchangers, pressure vessels, drums, and fabricated pipe items.

**Los Angeles:** Modest changes both up and down. Reduced waits in weeks are noted for electro-mechanical devices (6-8) and fasteners (3-4). Stretching out a bit are grey iron castings (4-6), brass castings (6-8), paints (4-6), heavy duty aluminum (26-30), and silbrazed fittings (13-17). Copper tubing is unchanged at 5-7.

**Philadelphia:** Some plastics are in—with these leads in weeks: fiber glass reinforcements (1½-2), polyphenylene sulfide (2), and polypropylene (1). Standard fasteners are available from stock. But specialty types are down (to 6-12). Steel is unchanged—8-10 for stainless bar, 4-5 for plate, and 18-26 for special alloy tubing.

**Pittsburgh:** No significant changes—with these typical weekly waits: Plastic bags (3-4), corrugated boxes (3-4), non-standard steel drums (12-16), glassine papers (5-6), coated litho paper (8-12), lumber and plywood (2-4), seals (1-2), polyethylene and PVC (4), shrink and stretch film (2-4).


Forward commitments


Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.

# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 4½ | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 6½ | 6½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 7 | 9½ |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 10 |
| Grey Iron Castings (LA) | 5 | 3½ | 5 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 10½ |
| Capacitors (Chgo) | 13 | 13 | 5 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 7 | 9 | 9 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 13 | 13 | 6 |
| Relays (Chgo) | 15 | 15 | 12 |
| Resistors (Chgo) | 12 | 12 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2½ | 1½ | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | 1/5 | 1/5 | 1/5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 3 | 4 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 7 |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 1½ | 2 | 3 |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 4 | 3½ | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2 | 2 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2½ | 3½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 3 |
| Titanium Dioxide (LA) | 1½ | 1½ | 1 |

## Paper

| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

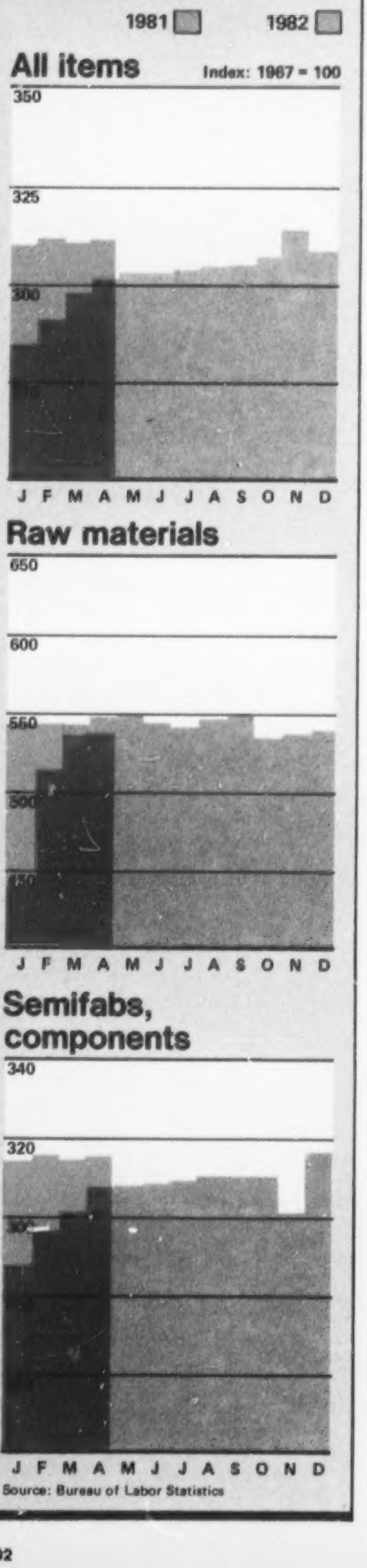
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 8 |
| Aluminum Plate (Chgo) | 7 | 7 | 8 |
| Aluminum Sheet (LA) | 12 | 12 | 11 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 7 | 4½ | 7 |
| Brass Rods (Chgo) | 2½ | 2½ | 2½ |
| Brass Sheet (Chgo) | 5 | 5 | 5 |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 6 | 6 | 7½ |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 6 | 9½ |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 3 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 6 | 6 | 6 |
| Wire, Specialty (LA) | 6 | 6 | 6 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 3½ | 4½ | 6 |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 41 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 5 | 5 | 7 |
| Machined Parts (Hous) | 9 | 9 | 12 |
| Pipes & Valves (Chgo) | 1 | 1 | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 9 | 9 | 8 |
| Rubber, Synthetic (LA) | 1 | 1 | 1½ |
| Rubber Hose (LA) | 7 | 7 | 7 |
| Tungsten Carbide Parts (Hous) | 15 | 16 | 16 |
| Valves, Cast Steel (Hous) | 13 | 13 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

# Industrial prices at a glance



Source: Bureau of Labor Statistics

# Price breaks continuing

Chalk up another amazing month on the industrial price front. Hit hard by overcapacity and poor demand, more and more items are beginning to show up in the "no change" or even "negative" categories (refer to table).

Moreover, a look at year-to-date figures suggests that the first-half overall increase at annual rate may well be under 5%. And even this could be an exaggeration, since Uncle Sam's price watchers often fail to pick up discounts and other forms of unofficial price shading.

As in the past few months, raw materials continue to be the softest area. Indeed, in most nonferrous metals and plastic resins, prices are actually under year-earlier levels.

Other relatively good performers over the past few months would have to include building materials, organic chemicals, component parts, energy, and even some heavy equipment items.

But Washington spokesmen warn that a slight shift toward higher tags may be in the making. They say that sensitive raw materials prices are almost sure to rebound with higher demand. And energy tags, which have been a major contributor to the current price lull, may soon start to edge up again. ***PW***

## This month's breakdown

| | Latest level (April) | Percent change from: | |
|---|---|---|---|
| | | Month ago | Year ago |
| **Bearings** | 334.0 | 3.7 | 13.9 |
| **Bolts, nuts, etc.** | 273.6 | 0.6 | 4.9 |
| **Chemicals, inorganic** | 313.7 | 0.3 | 11.5 |
| **Chemicals, organic** | 381.5 | −1.3 | −5.5 |
| **Concrete products** | 297.3 | 0.4 | 2.6 |
| **Cutting tools, small** | 276.8 | 0.5 | 5.9 |
| **Electrical instruments** | 258.3 | 0.4 | 17.8 |
| **Electric lamps (bulbs)** | 284.1 | 2.6 | 5.7 |
| **Fans and blowers** | 334.8 | 0.3 | 6.6 |
| **Fittings, industrial** | 309.1 | 1.6 | 2.1 |
| **Foundry and forge products** | 345.9 | 0 | 6.6 |
| **Fuel oil (residual)** | 1179.0 | 1.4 | −11.7 |
| **Furniture, commercial** | 274.5 | 0.2 | 7.9 |
| **Gasoline** | 636.9 | −6.4 | −15.3 |
| **Glass, flat** | 216.2 | 0 | 2.9 |
| **Glass containers** | 357.4 | 0.6 | 9.4 |
| **Gypsum products** | 262.8 | 0.8 | 2.3 |
| **Hand tools** | 331.6 | 0.9 | 7.6 |
| **Hand tools, power driven** | 219.7 | 0.3 | 4.2 |
| **Industrial furnaces** | 348.9 | 1.5 | 5.0 |
| **Integrating and measuring instruments** | 211.0 | 0.3 | 8.3 |
| **Internal combustion engines** | 320.0 | 0.5 | 7.7 |
| **Lubricating oil** | 888.1 | 0 | 3.9 |
| **Lumber millwork** | 276.4 | 0 | 0 |
| **Material handling equipment** | 288.7 | 0.1 | 4.9 |
| **Metal containers** | 329.7 | 1.1 | 5.0 |
| **Metal mill shapes (nonferrous)** | 300.2 | −1.0 | −1.1 |
| **Metal tanks** | 312.6 | −0.2 | 3.9 |
| **Motors and generators** | 311.6 | 0.2 | 7.5 |
| **Motor trucks** | 270.2 | 0.4 | 4.2 |
| **Office and store equipment** | 151.0 | 0.3 | 2.9 |
| **Paperboard** | 261.2 | 0 | 2.2 |
| **Paper boxes and shipping containers** | 252.1 | 0 | 4.2 |
| **Paper office supplies** | 222.0 | 0 | 4.0 |
| **Paint** | 259.3 | 0 | 4.5 |
| **Plastic resins** | 286.1 | −0.2 | 0.4 |
| **Precision measuring tools** | 236.0 | 0.3 | 8.4 |
| **Pumps and compressors** | 346.3 | 0.4 | 9.8 |
| **Refractories** | 339.7 | 0.4 | 14.6 |
| **Rubber belts and belting** | 329.5 | −1.1 | 16.3 |
| **Scales and balances** | 225.0 | −0.1 | −0.3 |
| **Steel products** | 351.0 | 0.5 | 6.2 |
| **Switchgear** | 259.5 | 0.3 | 3.8 |
| **Textiles, synthetic fibers** | 162.1 | −1.0 | 7.0 |
| **Textiles, gray fabrics** | 145.6 | −0.9 | −0.5 |
| **Tires and tubes** | 254.4 | −0.7 | 1.5 |
| **Transformers and power regulators** | 222.4 | 0.3 | 8.9 |
| **Valves, industrial** | 327.7 | 0.2 | 4.4 |
| **Welding equipment** | 267.1 | 0.7 | 3.5 |
| **Wire and cable** | 207.9 | 0.6 | −0.6 |

# Latest spot market prices

## Ferrous metals

| Ferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Los Angeles, cwt. | 24.40 | 23.40 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt. | 31.00 | 29.20 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt. | 20.80 | 20.80 | 19.50 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 23.15 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 28.85 |
| Steel, basic wire, Pitts., cwt. | 23.65 | 23.65 | 24.20 |

## Nonferrous metals

| Nonferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-l4 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, in alloy, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 3.74 |
| Brass, red, 85%, [sheet], lb. | 1.20 | 1.18 | 1.27 |
| Brass, yellow, [sheet], lb. | 1.14 | 1.12 | 1.21 |
| Cadmium, ton lots, lb. | 1.10 | 1.10 | 2.00 |
| Copper, electrolytic, wire bars, refd., lb. | 0.78 | 0.75 | 0.86 |
| Copper sheet, over 24 in., lb. | 1.29 | 1.27 | 1.36 |
| Lead, common, N.Y., lb. | 0.26 | 0.26 | 0.36 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl. | 364.00 | 390.00 | 415.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.35 |
| Nickel, electrolytic, producer, lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 7.13 | 7.07 | 10.83 |
| Tin, Straights, N.Y., lb. | 6.59 | 6.57 | 6.44 |
| Zinc, Prime West, East St. Louis, lb. | 0.350 | 0.380 | 0.463 |
| Zinc, die casting alloy, No. 3, lb. | 0.415 | 0.445 | 0.518 |

## Chemicals

| Chemicals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.460 | 0.460 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.52 | 1.51 | 1.85 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.760 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.315 | 0.345 | 0.345 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.42 | 0.42 | 0.38 |
| Polyethylene resin, low density liner film grade (market price), lb. | 0.29 | 0.29 | 0.39 |
| Polypropylene, homopolymer grade (market price), lb. | 0.38 | 0.36 | 0.40 |
| Polystyrene, general purpose grade (market price) lb. | 0.38 | 0.38 | 0.45 |
| Rosin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.375 | 0.375 | 0.410 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots lb. | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal. | 1.45 | 1.48 | 1.50 |

## Paper

| Paper | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Gummed sealing tape, carton | 15.70 | 15.70 | 14.80 |
| Offset paper, No. 1 Grade | 49.70 | 49.70 | 40.55 |
| Folding boxboard, white clay coated 80 bright, ton | 404.86 | 404.86 | 399.20 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 300.00 | 300.00 | 300.00 |

## Building materials

| Building materials | Latest price | Previous month | Year ago |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 306.79 | 305.49 | 333.73 |
| Lumber 2x2, pine, mbf, cl | 284.47 | 281.23 | 314.00 |
| Plywood, plyform, 3/4", msf, cl | 581.75 | 580.05 | 609.93 |
| Plywood, 5/8", msf, cl | 335.38 | 334.88 | 358.60 |
| Cement, bulk, ton, tl | 62.59 | 62.21 | 60.91 |
| Sand, ton, cl | 6.03 | 6.02 | 6.08 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 46.12 | 45.72 | 44.85 |
| Crushed stone, 1½", ton, cl | 7.74 | 7.75 | 7.58 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.74 | 0.74 | 0.67 |
| Gypsum sheathing, ½"x1'x8', msf, tl | 154.40 | 154.68 | 145.15 |
| Brick, common, per thousand, tl | 174.80 | 173.00 | 162.37 |
| Asphalt paving, AC-20 | 162.29 | 165.04 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.69 | 6.72 | 6.46 |

## Textiles

| Textiles | Latest price | Previous month | Year ago |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.244 | 0.245 | 0.271 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.00 | 1.00 | 1.02 |
| Cotton middling, 1", N.Y., lb. | 0.641 | 0.629 | 0.786 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | 0.630 | 0.680 | 0.785 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.70 |
| Blended printcloth, 64", 78x54, yd. | 0.625 | 0.625 | 0.770 |
| 20s combed yarns | 1.72 | 1.72 | 1.88 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| Hides and rubber | Latest price | Previous month | Year ago |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.475 | 0.440 | 0.550 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.460 | 0.463 | 0.595 |

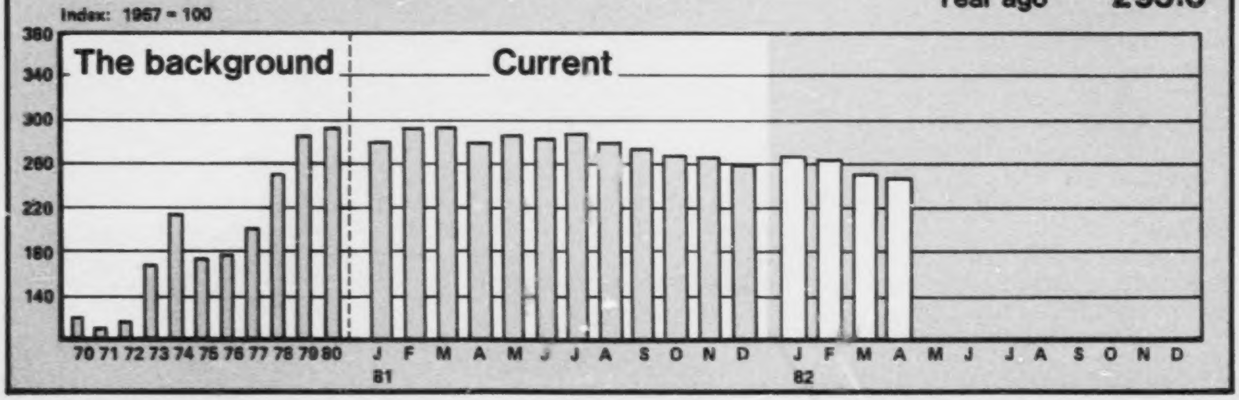
## Fuels

| Fuels | Latest price | Previous month | Year ago |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 24.75 | 23.00 | 27.75 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 31.30 | 31.30 | 39.00 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.880 | 0.880 | 1.038 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.855 | 0.835 | 1.055 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.850 | 0.805 | 1.025 |
| Heating oil, No. 2, N.Y., bulk, gal. | 0.903 | 0.883 | 1.058 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 23.70 | 23.25 | 26.00 |
| Jet kerosene, gal. | 0.840 | 0.870 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.34 | 0.34 | 0.46 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

## PW raw material price barometer

**Latest month** 248.4
**Month before** 254.5
**Year ago** 293.0



July 1982

# PurchasingWorld

C8650-2 9/15/82

FORECAST 82

## Midyear Update

—page 30

BEST AVAILABLE COPY

**PurchasingWorld**® Vol. 26, No. 7 - July 1982

## Helping you manage the business of buying

**Editorial Staff**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichardt†**

Managing Editor
**Paul V. Farrell†**

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Art Director
**Richard Trefilek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

†620 Graybar Building
New York, New York 10017
Phone: 212-682-7760

Technical Publishing
a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

8 **Purchasers revise forecasts, expect slow second half.** Survey shows that purchasing managers are making some significant mid-course revisions to their earlier 1982 demand and price projections.

30 **Recovery will be long and slow.** Economic consultant Dr. Louis J. Paradiso's views on the nearterm business outlook reveal that any pickup in the quarters immediately ahead will be quite modest.

34 **Computer forecasters look two years ahead.** Latest survey findings suggest that 1983 and 1984 growth should be better than this year's, but purchasing executives shouldn't expect a boom.

47 **Corporate execs expect better days.** Pickup in plant and equipment outlays and modest overall improvement is expected beginning next year.

52 **Match your needs with the right desktop computer software.** Here's a guide to understanding and selecting the applications software best suited to your computer system.

57 *PW Techfile:* **Engineered fasteners.** These various types of fasteners are designed for specific applications and are carefully matched to the required performance.

60 **Our readers react: Pro and con on the 2% discount.** Here's a sampling of comments by readers on the practice of pressing for a 2% price rollback and the story of how one PM turned the challenge to his advantage.

62 **Price increases through 1984 will stay below double-digit rates.** PMs can count on some fair-sized price increases toward yearend and into 1983 and 1984 as well.

## Around the purchasing world

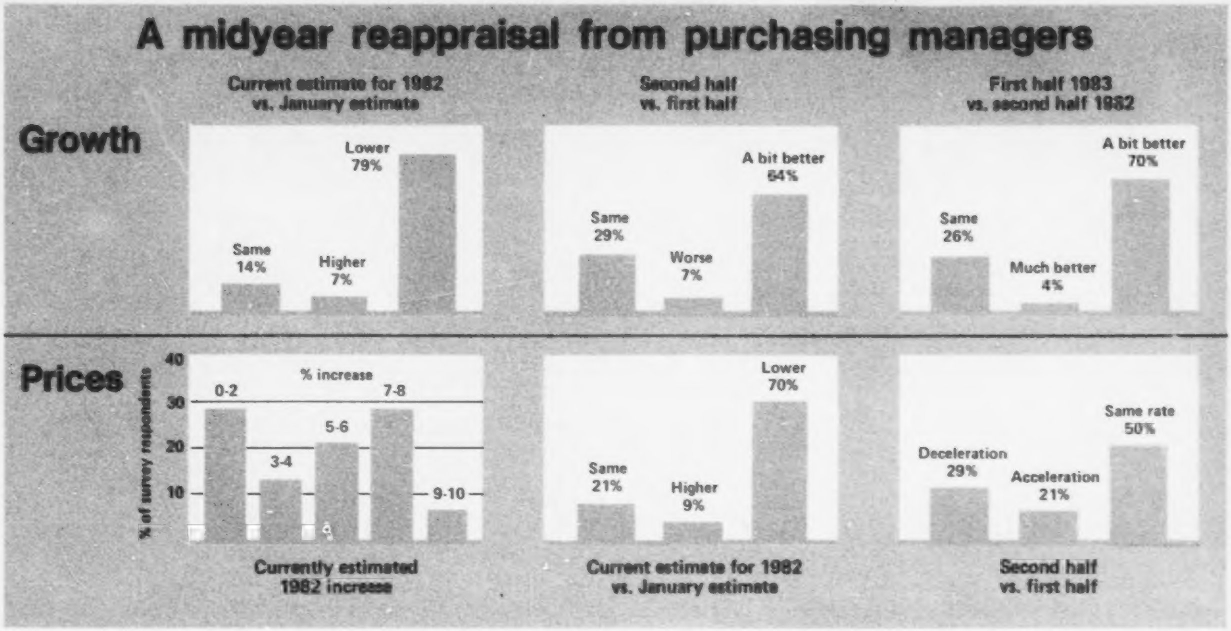
10 ***PW* Predicts**
16 ***PurchasingWorld* Perspective**
18 **Washington Perspective**
24 **Effective Negotiating**
26 **Purchasing and the Law**
28 **Principles of Value Analysis**
40 **SSCI Survey of Business Conditions**
64 **Product Briefs***
70 **Product Information***
80 **Materials Management**
82 **Transportration Briefing**
86 **Price Perspective**
90 **Freight Newsbriefs**
110 **Procurement Status Report**
112 **Latest Scrap Quotations**
114 **Business in Brief**
118 **Industrial Prices at a Glance**
120 **Raw Materials Price Barometer**

* Metalworking edition

ABP
BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. ©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659



A midyear reappraisal from purchasing managers

# Purchasers revise forecasts, expect slow second half

The nation's purchasing executives have been taking a good, hard look at their earlier 1982 demand and price projections, and, not surprisingly, they're making some significant midcourse corrections.

As one Midwestern purchasing vice president puts it, "We always make some adjustments, but this year it's more than just a few changes. Our current forecast bears little resemblance to the one we made back at the end of last year."

Multiply his comments by many similar ones made from PMs responding to ***PurchasingWorld***'s latest nationwide survey, and it becomes clear that managing a purchasing department is no bed of roses these days—despite the ready availability of most goods.

Some of the more specific findings of the just-completed study:

■ **Current price estimates:** A fairly significant 29% feel that they can hold their overall 1982 procurement price increase to 2% or under. Even more impressive, about two out of every three say the advance will be 6% or less. All told, the average 1982 increase is now put at only around 5%.

■ **The downward price revision:** Some 70% of the respondents say that their current estimates are lower than beginning-of-year projections. Only 9% have been forced to make some upward adjustments.

■ **Second-half price trends:** No major change in the current pattern is anticipated over the next six months. About half of the respondents now see the second half of 1982 as a carbon copy of the first half, and the remainder are about equally split between those expecting some deceleration and those expecting some acceleration.

■ **Current demand estimates:** Close to 40% of queried buyers now feel that their firm's overall 1982 activity will drop under last year's levels—a far cry from the 7% who felt that this would be the case at the beginning of the year.

■ **Downward growth revision:** All told, an overwhelming 79% have lowered their growth sites for 1982—far outweighing a miniscule 7% who still feel they might yet better their earlier projections.

■ **Future growth:** Any nearterm improvement is expected to be quite modest. While 64% feel the second half may be a bit better than year-to-date experience, not a single respondent sees any really major gains over the third and fourth quarters. And the pattern is similar for early 1983. Indeed, despite some of the relatively optimistic forecasts coming out of Washington these days, only 4% are betting that the first half of next year will be "much better" than the second half of 1982.

■ **Inventories:** The less-than-sensational demand outlook is also being reflected in inventory strategy. Plans for the next six months here: modest paring (64%), substantial paring (14%), and no change (22%).

Many PMs say they're using the current buyer's market to nail down favorable longterm commitments. Emphasis is on pacts with longer fixed-price guarantees and toned-down escalation clauses.

And with good reason. Most buyers feel that the current favorable procurement won't last forever. Few see major price acceleration over the next few quarters, but most are reconciled to a somewhat faster rate of increase in early 1983 as demand slowly picks up and vendors move to beef up today's sagging profit margins.

On the other hand, few anticipate any return to double-digit inflation. Citing somewhat lower wage rates, import competition, and operating rates that will be lucky to climb back into the low 80s next year, they see 1983 price hikes remaining in the relatively moderate 6-8% range. ***PW***

# PW Predicts...

By Robert S. Reichard, prices, economics editor

## Good buys in machinery

Market softness is spilling over into the machinery and equipment sectors.

A look at overall machinery quotes—as measured by Uncle Sam's Producer Price Index—tells the story. Where last year at this time tags were rising at about an 8% annual rate, they are now advancing by only 3-4%.

Nor do the official indexes indicate the extent of the weakness. There is now significant discounting in the machine tool area where orders are rising at only about half the yearago pace. Types of machines said to be particularly weak include numerically controlled lathes, machining centers, turning machines and grinders.

Some buyers say that outright discounts of up to 25% are now being offered in some of these lines—in addition to such unofficial price shading as freight concessions and easier credit terms.

There are good import buys, too—with average tags on incoming metalworking equipment off about 1½% over the first quarter of the year. Low-priced copies of U.S. tools (especially from Taiwan and Korea) are also said to be increasingly available.

Overseas competition is also a major factor in the office equipment sector where first quarter import tags were down an average of 2%. The Japanese are a major factor, here—as they strive to break into the microcomputer area. There are good buys on overseas copiers, too.

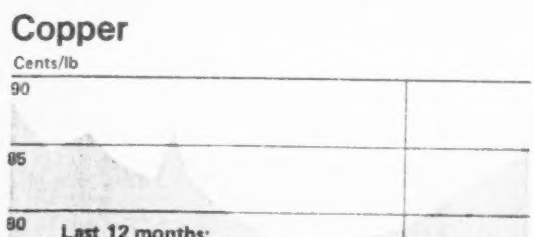
### Steel

Operating rates continue to fall—with mill utilization in recent weeks dropping under the 50% mark. Nor is any major nearterm pickup anticipated, with latest shipment estimates for 1982 as a whole put only in the 70-74 million-ton range—well under last year's

## Copper price scene

**CURRENT SITUATION: Prices continue to sag**—despite recent mine cutbacks and closures which have dropped the U.S. operating rate down into the 55-60% range. Disappointing demand is, of course, the major factor behind the easiness. But it's being aggravated by Third World producers (notably Chile, Peru, and Zambia) who are still digging the metal up at near-record levels. Add in the normally slow summer months, and **it's hard to make a case for any meaningful price rally before September or October.**

**DEMAND: Not even a fourth quarter pickup will put Free World demand back into the plus column.** Indeed, given year-to-date performance, global 1982 chewup could be off 3-5%—on top of the 3.1% and 1.3% declines of 1980 and 1981. One of the problems is construction, which here in the U.S. accounts for near 30% of all use. Other key markets (electrical, machinery, and transportation) aren't all that robust either. **But the longer term looks better—with average Free World use expected to rise about 3% a year.**



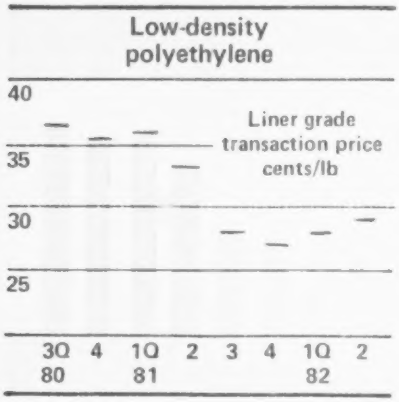
**SUPPLY: Inventories aren't all that much out of balance** (only about one week above normal on a global basis). But they could well edge up a bit over the next few months—or until industrialized-nation demand begins to pick up—probably sometime this fall. Upshot: no sweat nearterm. And there should be enough to go around in 1983 as more than 400,000 tons are added onto global potential this year. True, the following years (1984 and 1985) could mean some snugness-**but no real problems as global capacity rises near 3% a year.**

**PRICE OUTLOOK: Increases are inevitable**—given the fact that most producers are now operating in the red. But any nearterm hikes should be gradual—with perhaps 5-10¢/lb added onto the price by yearend. **And by late next year or early 1984, the red metal should again be up near the $1/lb level.** Beyond that, a $1.50/lb price can't be ruled out if producer estimates (suggesting that it would take this kind of price to justify new greenfield expansions) are anywhere near correct.

87 million ton reading. Not surprisingly, tags continue weak. Indeed, not only does the nearterm demand forecast seem to rule out any new boosts in lists, but it would also seem to guarantee continued discounting in such key lines as carbon sheet and plate, stainless, and even tinplate.

### Low-density polyethylene

This number-one plastic continues to take its lumps, with market tags in recent days sinking into the low 27-32¢/lb range (liner grade material)—far under official lists which now range anywhere from 35-46¢/lb. Behind the easiness: (1) softness in ethylene, which recently dropped as low as 17¢/lb, and (2) disappointing demand, which is keeping operating rates under the 70% level. True, some recovery is expected next year. Even so, 1983 prices will rise to only about 35¢/lb—only about 4¢ above the estimated 1982 average.



### Aluminum

Free-market ingot remains in the mid-40s range—some 30¢/lb under the official list. Plenty of easiness in fabricated items, too—with even the heretofore strong can stock heading lower. True, U.S. producers are cutting back. But with overseas smelters dragging their feet, it might take another 6-12 months to achieve a semblance of balance. Thus, any nearterm price recovery will be quite modest—with ingot perhaps moving up into the upper 50s by yearend—still far short of offical lists.

### Petroleum products

Quotes are beginning to edge up, reflecting recent hikes on the spot crude market. But any third and fourth quarter increases will be quite modest as (1) some countries raise production a bit and (2) oil demand for the year as a whole takes another drop. On the latter score, U.S. consumption this year is put at only 15.4 million barrels/day—some 600,000 under last year. On a more positive note, this should permit U.S. imports to fall a sharp 700,000 bpd—to only 5 million bpd.

### High-density polyethylene

Prices for the key blow-molding grade are down another cent—into the 36-37¢/lb range. One problem, aside from poor demand, has been the big slug of new capacity that has just come on stream—enough to keep operating rates in the below-70% range. Moreover, another 1-2¢/lb erosion can't be ruled out nearterm—if only because costs of key raw material ethylene have dropped even more than the resin. On the other hand, some recovery is inevitable toward yearend. And right now you can probably look for prices to average in the 40¢/lb range for 1983—modestly above current levels but still well under today's unrealistic 45-48¢/lb lists.

### Silver

Continuing sluggish demand precludes any significant nearterm rally. This year's global usage, for example, won't climb much, if anything, above last year's 369 million oz—far under the 507-million-oz peak of a decade ago. Other downward-tugging factors would have to include (1) the still-hefty stocks held by the Hunt brothers, (2) fear of new OSA releases, (3) the 10% mine production increase anticipated by 1985, and (4) high interest rates (which make monetary investments a much more attractive alternative than holding silver or other precious metals).

### Polyester

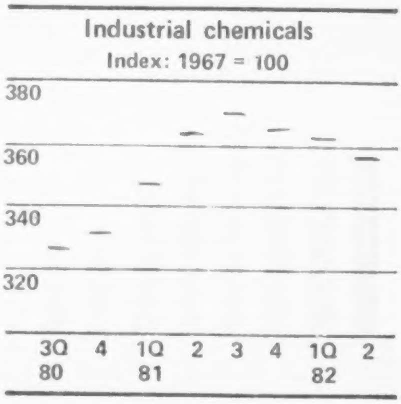
Weak domestic demand and a falloff in exports have dropped textile filament (150 denier feeder yarns) down into the 77-80¢/lb range—off some 20¢ from late 1981. Textured types are off by an almost-as-substantial 15¢/lb over the same period. The same factors—along with competition from cheap cotton—are pushing staple down, too. Upshot: Prices in the 73-78¢/lb range here—off about 5¢/lb from late 1981. But look for boosts next year when feeder years and staple are expected to average 10-15¢/lb and 5¢/lb, respectively, over current levels.

### Lead

Backing and filling in the mid-20s range is expected to drag on through the slow summer months. Indeed, any pickup after that is likely to be modest as supplies continue to exceed demand. On the latter score, 1982 domestic use will be hard put to equal even 1981's far-from-robust 1.29-million-ton level. Next year, however, could see a fair-sized 4-6% gain—enough to push tags back into the 30¢/lb-plus range. But the longterm prognosis is still far from bullish as reduced lead use in batteries and the lead-in-gasoline phaseout hold growth to under 2% a year.

### Industrial chemicals

Weakness is still the order of the day, with overall averages in the key organic sector running some 5-6% under yearago levels. Ethylene, for example, is still mired down in the 17-18½¢/lb range. And co-product propylene is beginning to ease, too. True, benzene has stabilized—but at very low levels. Some inorganics are also weak—including heretofore strong caustic soda. Sulphur dioxide is also softer in key Midwest and Southern markets because of Canadian competition.



### Rubber

The natural material should begin to firm a bit—assuming producers mean what they say about cutting sales 8% over the next six months. The cutback will be achieved through a combination

# Predicts...

of reduced work weeks, a ban on chemicals to stimulate yield, and a buildup of producer stocks. It could bring prices back into the 50-55¢/lb range by early 1983. But that would still leave quotes well under the 65¢/lb-and-higher levels of a few years back.

### Cement

Slumping construction is taking its toll—with prices declining fractionally over the past few months—thus knocking the year-to-year advance down to only 3-4%. And further nearterm easiness can't be ruled out. Meantime, the industry is using the demand lull to upgrade its facilities. Last year, a record 9 million tons of new capacity came on stream—with another 3 million currently under construction. This is permitting the shutdown of uneconomic facilities. These latter closures have also resulted in a decline in overall industry potential—with the latest figures off about 1.5 million tons from the peak hit back in 1974.

### Zinc

Bearish sentiment continues as the metal's two key markets (autos and construction) remain at recession lows. Right now, total domestic use of slab zinc looks to hit only 830,000 tons this year—off 4% from 1981. True, the new zinc penny will help—but even next year it won't add more than 2½% onto overall usage. Upshot: Price recovery will be slow—despite some intensive domestic curtailments.

### Newsprint

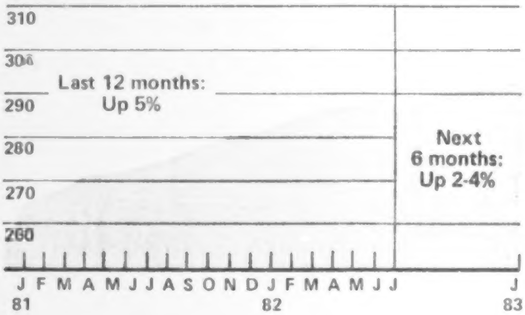
A second 1982 attempt to boost tags is being made—with prices moving up 5% (to $525/metric ton). But chances of it sticking seem slight in view of today's excess capacity. Another reason for easiness: user inventories that are some 50% above normal. The latter is traceable to hedge buying by publishers earlier this year in anticipation of a strike that never materialized.***PW***

## Paper price scene

**CURRENT SITUATION: Prices are taking a breather.** Indeed, even the 5% average advance shown over the past year (see chart) is probably exaggerated—as official government indexes fail to pick up all the current discounting and other forms of price shading. Another sign of the times: Corrugated carton shipments are lagging 1981 by more than 6%—with little chance of any bounceback to the 245-billion-square-feet total of last year. **Equally significant, operating rates are down virtually across the board**—in some cases by more than 10 percentage points.

**DEMAND: Negative signs prevail. Corrugated and linerboard,** for example, would be off upwards of 3%—even after factoring in some late-1982 pickup. Ditto **construction board**—hit hard by the dismal housing picture. And demand from the **food processing sector** will be lucky if it reaches last year's levels. As for paper—reduced advertising will hold down **printing types**, while **unbleached kraft** will suffer from a combination of weak domestic markets, plastic competition, and soft export demand.

**SUPPLY: Low operating rates tell the story.** This year, linerboard rates could drop down into the low 80s—a far cry from last year's 94% reading. Look for almost-as-precipitous drops in paper—where production of uncoated free sheet, coated printing stock, and unbleached kraft will all drop down into the 86-87% operating rate range. **No problems in 1983 either**—as the combination of only modest demand gains and new capacity coming on stream keep most paper and board sectors in the 85-90% range.



### Paper and allied products

Index: 1967 = 100

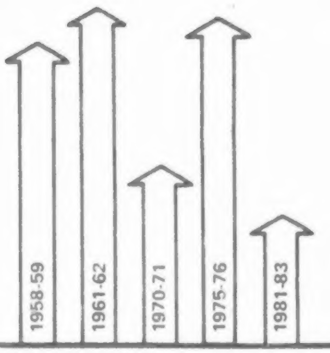
**PRICE OUTLOOK: The combination of rising costs** (they could be up as much as 7% this year) **and slowly improving demand point to some acceleration.** But it will be quite modest as competitive conditions exist. For the industry as a whole, little more than a 2-4% increase is seen by early 1983. **After that, boosts could be somewhat larger**—particularly in linerboard where market quotes have recently been under year-earlier levels.

PurchasingWorld FORECAST 82

***MIDYEAR UPDATE***

# Recovery will be long and slow

## Federal budget deficits and high interest rates will keep economy from taking off



By Robert S. Reichard, executive editor

Things may soon be looking up. But don't expect miracles.

That in a nutshell is how Dr. Louis J. Paradiso views the nearterm business outlook. The ***PurchasingWorld*** economic consultant's midyear look into the crystal ball reveals that any pickup in the quarters immediately ahead will be quite modest—with average gains running well under those noted during the initial stages of other recent recoveries (see chart).

Why the far-from-rosy outlook? The veteran economist feels that Reaganomics leaves quite a lot to be desired and, more particularly, that huge budget deficits combined with high interest rates will continue to put a damper on growth—not only for the remainder of the year, but into 1983 as well.

Nor is he absolutely convinced that inflation has been licked. To be sure, Paradiso is encouraged by the current price lull, and he certainly does not see any return to double-digit rates. On the other hand, he feels some fair-sized increases may be in the making later this year and in 1983 as producers move to beef up today's badly-mauled profit margins.

His views on key elements of the economy can be summed up along these lines:

- **Real growth:** Only a small 3-4% rise at annual rate is projected for the rest of the year—not nearly enough to recoup early 1982 losses. And these very modest advances are anticipated for early next year.
- **Prices:** The pace of price increases will accelerate as demand slowly improves. By late 1982 and early 1983, the GNP price deflator and the cost-of-living index will both be running at 8%-or-so annual rates. And producer finished good quotes will be advancing at only a slightly more subdued 6-8% pace.
- **Labor costs:** Some modest and continuing improvement is forecast—on a combination of moderating wage hikes and slowly accelerating productivity gains. Unit labor costs for the private nonfarm economy, which were clocked at 9% last year, should fall to 8% in 1982 and to about 7% in the following year.
- **Business inventories:** Any second-half accumulation will be small because of lingering business uncertainties, ample supplies, and interest rates. In any case, it will not be enough to prevent an average $5 billion decline for 1982 as a whole. And even the 1983 advance will be modest by historical standards (only about $10 billion).
- **Profits:** Bad news here, despite some second-half bottoming out. Indeed, for the year as a whole, the after-tax corporate take could be off as much as 25% from 1981 levels.
- **Production and operating rates:** The output pickup will be slow. Add in a modest amount of new capacity coming on stream, and factory operating rates are still likely to be only in the low 75% range by mid-1983—far too low to spark any big new capital spending spree.
- **Interest rates:** A modest dip over the next few months is possible. But borrowing costs could well start to climb again toward yearend—with the prime rate advancing back into the 17-18% range by early next year.
- **Construction:** The continuing high interest rates will hold this year's housing starts to only 1.1 million units—and a not-much-more-robust 1.3-1.4 million units is forecast for 1983.
- **Consumption:** Not all of the additional income being pumped into the economy by tax cuts and higher Social Security benefits will be spent. Upshot: a high savings rate (6% or so of disposable income) and lackluster auto demand—with sales coming to only about 8 million units over the current year (versus 9.0 million and 8.5 million in 1980 and 1981, respectively).

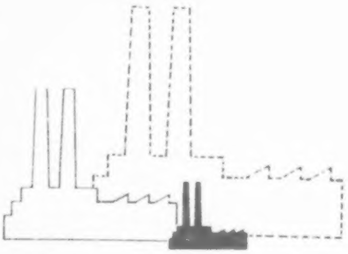
Paradiso hastens to add that precision forecasting is a lot more "iffy" than usual this time around—with the final figures dependent on such far-from-certain exogenous factors as Fed policy, legislative action in curtailing the budget deficit, and the highly fluid international situation. As such, he feels "all forecasts should be updated at least once every three months and perhaps even more often than that."

He further warns to know your forecaster. Most are unbiased, he says, but some do tend to be overly optimistic or pessimistic. A few others are excessively concerned about pleasing their bosses, he admits.

On the latter score, he would be especially wary of projections coming from Administration economists. As Paradiso puts it, "These will tend to be far too bullish—especially as the elections draw near. And I would expect my own projections and those of most econometric models to be considerably under those of Washington—at least as far as overall nearterm growth is concerned."

The veteran economist also warns against glib generalizations. While prices should start to accelerate a bit,

## Overall growth



Reagonomics has not worked for several reasons:

(1) Businessmen and consumers lack confidence in the approach. In any case, there is no historical evidence that the combination of (a) large tax cuts slanted toward the more affluent, (b) big increases in defense spending, (c) deep slashes in many social programs, and (d) tight money add up to a viable program for steady growth. Indeed, there are built-in contradictions in this kind of approach.

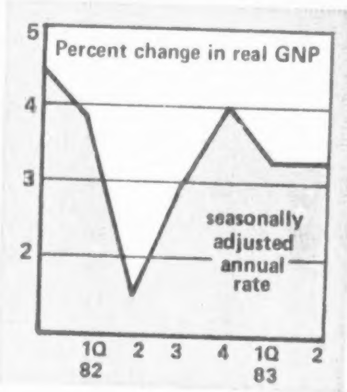
(2) Liberal investment-tax incentives cannot be expected to spur capital spending at a time when operating rates are falling. Historicaly, an 80%-or-higher rate would be needed to spark any sort of meaningful pickup here.

(3) The federal budget implies that record-high deficits will persist, thus casting doubt that interest rates will be brought down significantly and permanently.

In other words, the Reagan strategy is a gamble and most Americans are not yet willing to bet on its success.

To be sure, the combination of a new 10% tax cut and 7.4% increase in Social Security benefits this month will boost personal incomes by a hefty $47 billion annual rate. But unemployment and other uncertainties will limit the portion of this that will be spent.

What's needed, Paradiso says, is (1) a more accomodating monetary policy, (2) a sharply reduced federal deficit and (3) more emphasis on productivity—by expanding the use of robots, the installing of more efficient machinery, and the improving of managerial expertise.



But all this will take time and a change in Washington's thinking. As such, even with the boost in income, we will see only very modest growth through mid-1983. Paradiso's predictions: a 3% rate of real growth in the third quarter, 4% over the last three months of the year, and a 3-3½% rate in early 1983.

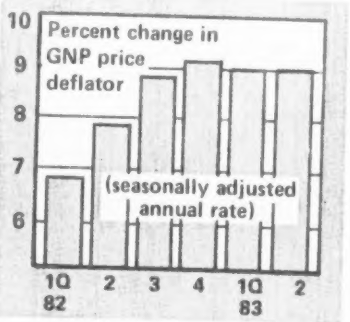
there will still be plenty of distress selling and good bargains around—particularly in some of the nondefense industries where demand gains will be painfully slow.

He further adds that the buyers' market will linger on for quite a while. Result: There will still be plenty of opportunities for nailing down longterm contracts with fixed prices ranging out as far as a year.

Following are Paradiso's more detailed observations and projections for key areas of the economy through the end of 1982 and into the first half of 1983.

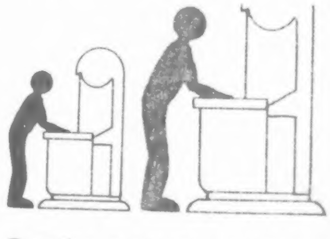
## Prices

Several factors have made for the current respite: slow business demand, overcapacity, a global oil glut, and ample food supplies. But don't expect the continuing near-stability of the past few months. Gasoline and beef prices will start edging up, and slowly improving

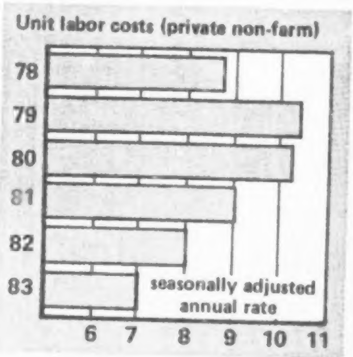


industrial demand will firm prodching 8% toward yearend. A similar pattern is seen for the cost-of-living index: 7½-8½% over the next six months and about 8½% during the first two quarters of next year.

## Labor costs



Paradiso suggests caution when looking at quarterly figures, which are generally erratic. A much better indicator here is the yearly average. And the outlook isn't all that bad here, because

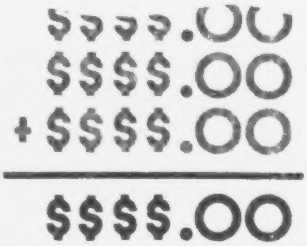


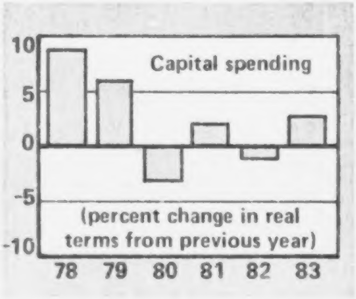
### Labor costs

(1) the recession is resulting in lower pay demands and even some freezes and givebacks, and (2) improving activity will help beef up labor productivity. This year, for example, the average pay gain in the private nonfarm sector will drop about 1½ percentage points (to 8½%). Combine this with about a ½% increase in efficiency, and you end up with about an 8% increase in unit labor costs—down one percentage point from last year's 9% reading.

As for next year, look for this trend to continue. Specifically, an 8% pay boost combined with a 1% productivity increase will drop the unit labor cost increase down into the 7% range.

## Profits and investments





Even with enhanced depreciation allowances, corporate cash flow in the first quarter was off 10% from late last year. And, of course, after-tax corporate profit performance has been even more dismal.

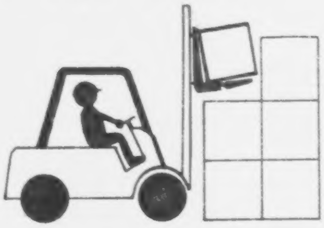
One problem is that earnings tend to lag any economic recovery—a fact of economic life that will prevent any appreciable profit recovery until late in the year. Result: For 1982 as a whole, the after-tax take could be off as much as 25% from last year's levels.

This will most certainly inhibit new capital investment. So will the high cost of borrowing and low 70% operating rates. The latter is perhaps most crucial—for historically spending only begins to increase when utilization rates first approach and then begin to exceed the 80% level. Since this is still nowhere in sight (U.S. industry will only be at the 75% level in early 1983), capital spending will remain depressed.

Paradiso's forecast here: a 1% decline in real terms for overall 1982. And even in the first half of next year, it's hard to see a gain of more than 3% at annual rate. Incidentally, this is well below the rate envisioned by supply-side economists.

PurchasingWorld
FORECAST 82
MIDYEAR UPDATE

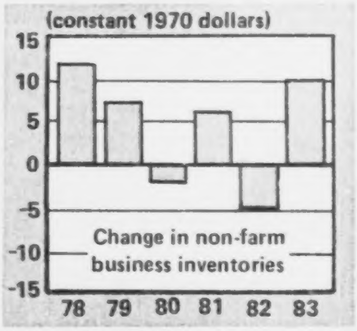
## Inventories



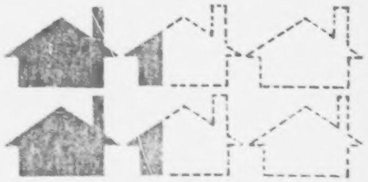
Some sharp corrections were made in the first quarter. In real terms (stocks expressed in 1972 dollars) for example, the change in nonfarm holdings during that 3-month period dropped $17 billion at annual rate. But with sales falling even faster, the real stock/sales ratio remained near the peaks hit during the 1974-75 downturn.

As such, any nearterm accumulation will be restrained even if sales rise. Add in still-high carrying costs, and businessmen can be expected to continue pursuing a cautious inventory policy. Thus, even with some fractional gains late in this year, the overall 1982 business inventory figure could be down about $5 billion (again in 1972 dollars).

And even in 1983, any increases will be quite restrained. As of now, total nonfarm business stocks look to rise by only about $10 billion—but with most of the advance centered in defense related industries.



## Interest rates and



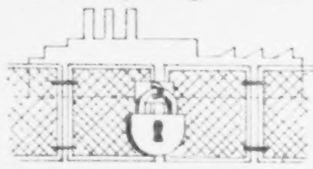
Forecasts here depend to a large extent on the size of the budget deficits and the overall Fed monetary stance. Right now, even with anticipated budget cutbacks, the deficit looks far too high to prevent any sharp drop in interest rates. Moreover, the economic recovery itself will require additional credit to finance inventories and other phases of business operations.

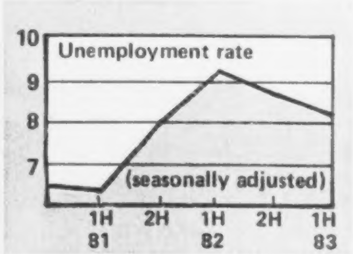
Defense contractors will also have to step up borrowing since the Pentagon promises to be slow with progress payments.

So barring any sharp change in Fed policy (which seems quite unlikely), upward pressures on interest rates could well intensify again by early next year.

The forecast is for the prime rate to

## Unemployment

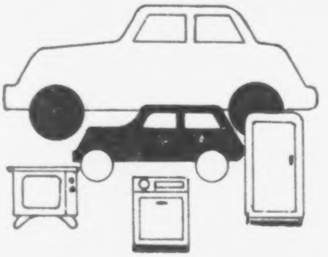


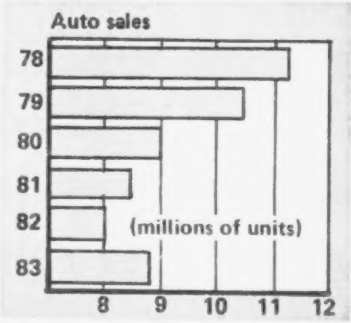


This is another economic indicator that generally lags an economic recovery. The basic reason: Output can usually be increased at first by improving productivity and lengthening the hours of work.

In any event, Paradiso expects this total jobless rate to fluctuate between 8½% and 9% through the end of the year. And even with some improvement after that, it is doubtful whether it can be brought down below the still-high 8% mark by the middle of next year.

## Consumer spending





It is not at all certain how much of 1982 and 1983 tax cuts will be funneled back into the spending stream. The fact that most of the additional money will go to higher-income groups, for example, could well lower the percentage of total U.S. income that will be spent on automobiles and other big-ticket consumer items.

This, in turn, suggests a rise in the personal savings rate. Clocked in at 5.3% last year, it could well rise to 5.7% in 1982 and an even higher 6% in 1983.

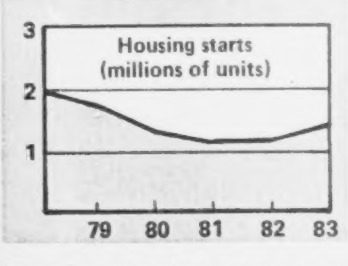
In any event, any real increase in aggregate consumer buying should be quite modest. Annual rates of rise will only near 3% in the third quarter and 4½% in the last quarter. Moreover, because of a poor first half, spending for the year as a whole should be up by only 2% or so in real or constant dollar terms. Looking further ahead, the first half of next year should see a 4-5% advance, hardly enough to assure a major business recovery.

Autos will be particularly disappointing as consumer confidence, hurt by unemployment, remains at extremely low levels. Other factors likely to limit nearterm growth in car purchases would have to include steep prices and high financing charges. As such, many potential new-car buyers will probably continue to patch up their old vehicle or opt for a used car.

The result is that new auto sales in 1982 may total no more than eight million units—well under the 9.0 million and 8.5 million of 1980 and 1981, respectively. True, some improvement is likely toward yearend and in early 1983. But it's still hard to make a case for a major rebound.

One bullish note on the consumer front, however: Installment credit outstanding relative to disposable personal income is now down at a healthy 15% (versus 19% in 1979). So when buyers do decide to spend, they won't be overextending themselves.

## construction

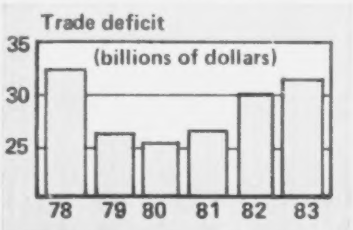


drop a few percentage points over the next few months but rise again into the 17-18% range again by early 1983.

These factors would also seem to preclude any significant drop in mortgage rates from the current 17% level. This, in turn, will put a damper on construction. The point is that many potential buyers simply cannot afford to finance a new home even though the purchase price of a new house has edged down a bit.

Housing starts for the current year may only total about 1.1 million units. And even next year will be a disappointment with only about 1.3-1.4 million units, far under the 2-million-plus figure of a few years back.

## International



High interest rates plus relatively modest inflationary pressures should keep the U.S. dollar strong vis a vis most other major currencies. But this could be a mixed blessing, for it is having an adverse impact on exports.

Indeed, our outgoing shipments have been on a moderate declining trend since last September. And there's little indication that the current annual rate of exports ($225 billion) will change very much over the next few quarters.

Imports, meantime, have shown some wide fluctuations, mainly due to the erratic movement in oil. But basically imports are a lot more attractive under a strong dollar. This is certainly the case in steel where the rise in the dollar had made U.S. mills a high-cost producer relative to metal being turned out by our Japanese and European competitors.

All told, these diverging import and export trends should make for an even larger trade deficit—perhaps several billion above the $27.8 billion recorded last year. And the red ink figure could be even bigger in 1983 when recovery adds to import demand. ***PW***

# Computer forecasters look two years ahead

The nation's big econometric think-tanks—like everyone else these days—have been forced to revise their nearterm business forecasts to take into account (1) today's deeper-than-anticipated recession and (2) improving inflation prospects.

The latest projections, based on a ***PurchasingWorld*** survey of four leading forecasting firms, suggest that while any late-1982 recovery won't be enough to put the current year's growth back into the plus column, the following two years (1983 and 1984) should turn out tolerably well.

But the accent should be on the word "tolerably." The fact is that not one of the four forecasting models monitored in the survey is looking for an annual rate of growth exceeding 4½% over this extended period (see table). Indeed, average out all four estimates of real GNP growth, and the figure comes to only around 4% a year.

One reason for these growth-but-no-boom scenarios: the expectation of continuing high interest rates. Again there's pretty much agreement on this score. The four big econometric consulting firms, for example, all feel that any decline in lending rates will turn out to be quite modest. Note that even the most optimistic of them projects a prime rate of over 12% by as late as 1984.

But if all those forecasts aren't too bullish on growth, they are somewhat optimistic about avoiding any new outbreak of double-digit inflation. The GNP deflator (the most comprehensive of all U.S. price yardsticks) is expected to average out near 6% over the next few years. And the same is true of consumer prices—though some slight acceleration is anticipated here by all four of the econometric models in 1984.

About the only price sector likely to show any appreciable amount of acceleration in 1983 and 1984 is producer prices—on a combination of slowly rising demand, less cut-throat competition, and attempts to beef up some of today's distressingly low profit margins.

But even here, the advances are expected to remain in bounds, with the four-firm average increases in Uncle Sam's Producer Price Index rising from near 3.7% this year, to 6.9% in 1983 and 7.6% by the following year.

The one big headache over the forecast period—aside from relatively slow growth and still-high borrowing costs—is expected to be unemployment. All four of the forecasts (all based on complex mathematical relationships) show only slight improvement. Even the most optimistic of them anticipates a jobless rate of near 7½ by 1984.

All of these forecasts will, of course, be subject to revisions as the economic ground rules change. But the fact that all four are in basic agreement would tend to instill a note of confidence as to where demand and prices now seem to be heading in the years immediately ahead. ***PW***

## What the big econometric models are predicting

| | Prime Interest Rate | | |
|---|---|---|---|
| | 1982 | 1983 | 1984 |
| Data Resources, Inc. | 15.3% | 14.9% | 13.7% |
| Chase Econometrics | 16.1 | 15.1 | 13.8 |
| Wharton | 15.7 | 13.6 | 12.2 |
| Merrill Lynch Economics | 15.5 | 14.5 | 13.0 |
| Average | 15.7% | 14.5% | 13.2% |

| | Real GNP (% change) | | | Consumer Price Index (% change) | | |
|---|---|---|---|---|---|---|
| | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 |
| Data Resources, Inc. | −1.5 | 3.3 | 4.2 | 5.8 | 6.4 | 6.6 |
| Chase Econometrics | −0.8 | 4.0 | 3.9 | 6.1 | 6.4 | 6.7 |
| Wharton | −0.4 | 4.5 | 3.8 | 5.2 | 5.3 | 6.3 |
| Merrill Lynch Economics | −0.5 | 3.5 | 4.5 | 5.2 | 5.6 | 5.8 |
| Average | −0.8 | 3.8 | 4.1 | 5.6 | 5.9 | 6.6 |

| | GNP Price Deflator (% change) | | | Industrial Production Index (% change) | | |
|---|---|---|---|---|---|---|
| Data Resources, Inc. | 6.4 | 6.4 | 6.3 | −5.5 | 6.8 | 6.6 |
| Chase Econometrics | 6.8 | 6.3 | 6.4 | −4.6 | 7.1 | 5.5 |
| Wharton | 6.7 | 6.2 | 6.1 | −3.7 | 7.5 | 5.1 |
| Merrill Lynch Economics | 6.2 | 5.7 | 5.6 | −5.3 | 6.0 | 7.2 |
| Average | 6.5 | 6.2 | 6.1 | −4.8 | 6.9 | 6.1 |

| | Producer Price Index (% Change) | | | Unemployment Rate | | |
|---|---|---|---|---|---|---|
| Data Resources, Inc. | 2.6 | 6.4 | 8.3 | 9.3 | 8.8 | 8.0 |
| Chase Econometrics | 4.0 | 8.6 | 9.2 | 9.0 | 8.4 | 7.5 |
| Wharton | 5.2 | 6.8 | 7.1 | 8.8 | 8.1 | 7.6 |
| Merrill Lynch Economics | 2.9 | 5.7 | 5.7 | 9.3 | 8.9 | 8.1 |
| Average | 3.7 | 6.9 | 7.6 | 9.1 | 8.6 | 7.8 |

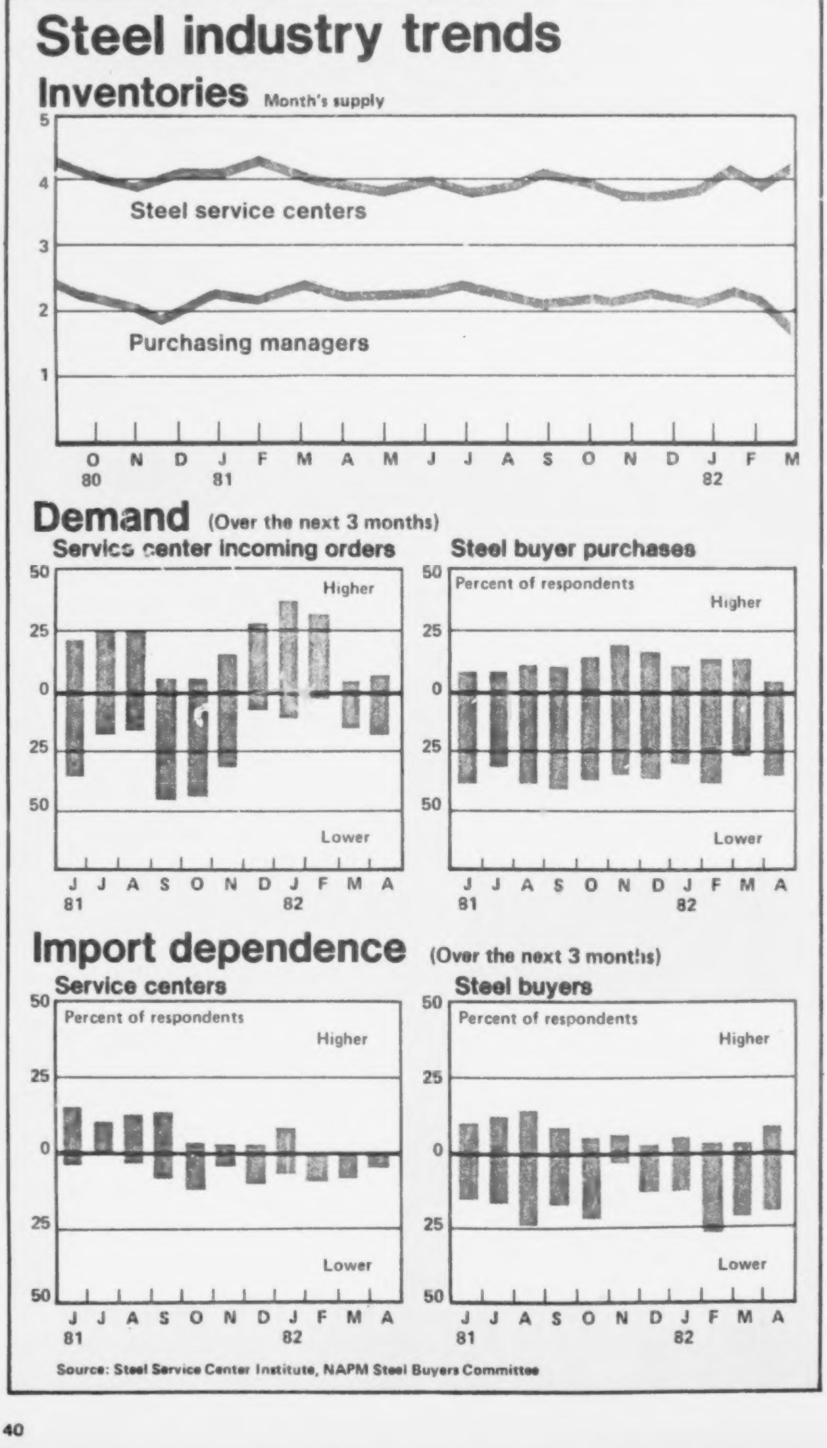
PurchasingWorld
FORECAST 82
**MIDYEAR UPDATE**

# Steel suppliers see dark days ahead

Recent efforts to pare steel inventories have not been meeting with too much success. It's not that tonnage holdings are not being cut. Rather it's that production and sales have been falling even faster, thereby resulting in a rising months' supply.

The top section of the accompanying chart provides the details. Note that both distributors reporting to the Steel Service Center Institute (SSCI) and purchasing managers responding to the latest NAPM Steel Survey show an uptick in relative supplies.

True, the advances are moderate. But they do suggest that inventory caution will continue to be the byword. In any event, no one is satisfied. Thus 77% of the steel service centers and 45% of steel buyers now say their inventories are too high relative to demand—with not one in either group rating their stocks as "too low."


Steel industry trends

Source: Steel Service Center Institute, NAPM Steel Buyers Committee

Adding to the determination to reduce holdings is today's ready availability —with no problems anticipated by either surveyed group. Indeed, this had been the case without exception since the beginning of the current year.

With these inventory and availability situations plus the feeling that any business pickup is still months away, it is not surprising that nearterm steel ordering is expected to be quite disappointing—with both distributors and purchasing managers indicating lower bookings through summer.

For example, some 17% of the steel service centers expect their incoming business to tail off over the next three months—more than twice the number who say they are contemplating increases. And the picture on the buyers' front is much the same—with the 33% anticipating a decrease in steel purchases outweighing those who plan boosts by an even heftier 5:1 margin.

Further confirmation of the lackluster outlook comes from service center executives who attended their association's recent annual meeting in Hawaii. As SSCI President Andrew Sharkey summarizes it, shipments by the group this year could fall to near 16 million tons—down almost 9% from the 17.5 million tons of 1981.

Sharkey also notes that members in all geographic regions now report slowdowns or a levelling off. The only exception, he adds, are some big nonresidential projects and critical energy-related programs.

But if it's any consolation, the SSCI slowdown represents a smaller percent decline than contemplated by steel mills who now seem reconciled to a much larger 15-20% drop-off in shipments.

Another interesting finding of both surveys: the continuing availability of cheap imports. Every single service center, for example, now reports lower prices on carbon items—with 55% putting the price break in the relatively high 10-20% range. Steel buyers tell much the same story—with 87% saying foreign metal is cheaper. ***PW***

# Price increases through 1984 will stay below double-digit rates

Count on some fair-sized price increases toward yearend—and the same is likely for 1983 and 1984 as well.

That's not to say we're heading for another round of double-digit inflation—at least not as far as overall averages are concerned. But with the economy about to bottom out and profits squeezed to near the breaking point, it would be unrealistic to expect a continuation of the near stability of the past few months.

That in a nutshell is how DRI's Cost Forecasting Service sees the price picture developing. (And it's an opinion shared by other big econometric consulting firms.)

Other upward-tugging factors to contend with in the years immediately ahead would have to include a slight uptick in labor costs and some new rises in energy. (On the latter score, DRI sees energy price escalation next year matching or exceeding rates experienced this year. Indeed, as suggested in the accompanying table, prices for processed fuels should be up 9% over the next four quarters.)

As for other key industrial sectors, DRI sees the price picture shaping up something along these lines:

■ **Steel mill products:** Slow but steady incresing demand from the auto and construction industries will allow for some substantial boosts. By the third quarter of next year, for example, galvanized sheet could be up about 10%—with rebars advancing by an almost-as-impressive 9.6%.

■ **Copper:** Substantial price recovery from current below-cost levels is anticipated. Aided by relatively low inventories, average quarterly advances of 3.6% are seen from late 1982 through the end of 1984. This should bring the price to near 90¢/lb by the second quarter of next year and to about $1/lb by early 1984.

■ **Aluminum:** The price outlook is similar to copper, with quarterly rises averaging out at 4.2% from now through the end of 1984. Aluminum scrap should move up even faster—with a compound annual rate (CAR) of 19.2% seen for the entire three-year 1982-84 period.

■ **Industrial chemicals:** Price recovery is expected to start during the last quarter of the year—and from there to the end of 1984, quotes are slated to advance at a 10.4% CAR.

■ **Corrugated boxes:** Despite some late-1982 pickup, prices for the current year will average only 2.4% ahead of 1981. But much more substantial 8.6% and 6.1% increases are projected for 1983 and 1984, respectively.

■ **Construction materials:** Slow housing recovery should moderate any price increases—with only about an 8.3% CAR of advance seen over the three year 1982-84 period. But somewhat lower annual rates are seen for such products as sheetmetal items and asphalt roofing.

■ **Electronic components:** Some firming is anticipated here by yearend. But subsequent hikes will be quite modest with average increases for 1983 and 1984 put at only 4.0% and 4.2%. One exception: capacitors, which should show much larger hikes (10-11% a year) over this two-year period. ***PW***

## Prices: the product-by-product outlook

(year-to-year third quarter comparison)

| | 1981/80 | 1982/81 | 1983/82 | 1984/83 |
|---|---|---|---|---|
| **RAW MATERIALS, ENERGY** | | | | |
| Supplies for manufacturing | 8.8% | 5.7% | 8.4% | 8.7% |
| Industrial chemicals | 12.9 | −2.5 | 11.3 | 7.7 |
| Middle distillates | 23.1 | −8.5 | 8.8 | 10.2 |
| Processed fuels & lubricants | 16.8 | −1.8 | 8.9 | 9.0 |
| Supplies for construction | 7.2 | 2.8 | 9.8 | 10.0 |
| **METALS** | | | | |
| Domestic copper cathode | −15.7 | −5.0 | 17.6 | 14.1 |
| Zinc | 27.4 | −13.8 | 12.0 | 10.6 |
| Lead | 11.6 | −32.4 | 16.3 | 13.6 |
| Carbon steel plate | 11.5 | 10.3 | 6.4 | 11.2 |
| Galvanized carbon sheet | 19.9 | 2.9 | 10.0 | 9.1 |
| Reinforcing bars | 1.3 | −2.3 | 9.6 | 10.1 |
| Wire and Cable | −3.0 | 2.0 | 13.5 | 11.3 |
| Structural metal products | 10.0 | 3.8 | 3.6 | 8.0 |
| **COMPONENTS** | | | | |
| Hardware | 8.0 | 6.1 | 8.6 | 6.7 |
| Electronic instruments | 5.8 | 3.8 | 6.3 | 5.8 |
| Storage batteries | 4.6 | −3.9 | 9.0 | 8.0 |
| Electronic components | 6.8 | 3.7 | 4.5 | 4.1 |
| Machine shop products | 14.3 | 6.4 | 8.8 | 10.3 |
| Unwatermarked bond #4 | 9.6 | 7.5 | 7.2 | 7.5 |
| Switch gear | 7.4 | 3.8 | 8.3 | 8.5 |
| Fasteners | 7.1 | 5.5 | 8.1 | 6.8 |
| Corrugated cartons | 6.9 | 1.5 | 9.4 | 6.1 |
| Truck tires | 8.8 | 1.4 | 8.8 | 9.5 |
| **CONSTRUCTION MATERIAL** | | | | |
| Insulation board | 15.5 | 5.9 | 7.1 | 11.9 |
| Plastic products | −1.7 | −1.2 | 10.1 | 8.1 |
| Bituminous paving matl. | 22.9 | −2.5 | 11.1 | 11.8 |
| Sand, gravel, stone | 8.5 | 6.7 | 5.5 | 5.5 |
| Culvert pipe, reinforced | 3.4 | 2.0 | 5.6 | 10.0 |
| **EQUIPMENT** | | | | |
| Construction machinery | 10.8 | 6.2 | 7.8 | 10.1 |
| Heating equipment | 9.6 | 4.3 | 6.3 | 6.8 |
| Railroad equipemnt | 6.4 | 6.8 | 11.2 | 10.6 |
| Mining machinery | 9.0 | 8.9 | 12.6 | 11.9 |
| Oil field equipment | 20.7 | 9.9 | 8.6 | 11.0 |
| Motor trucks | 12.2 | 5.5 | 10.5 | 9.0 |
| Metalworking machinery | 8.9 | 7.1 | 9.7 | 9.4 |

Source: Data Resources, Inc.

# Leadtime index shows first signs of business recovery

Leadtimes may be approaching a bottom. Witness the near-level (50) performance of ***PurchasingWorld***'s exclusive leadtime index.

A similar conclusion is suggested by two NAPM Business Survey Committee reports. The "favorable" gap between those reporting faster and those reporting slower deliveries has narrowed to 15 percentage points—down significantly from the 22 percentage-point gap of the previous month. And, there has been no further increase in the already large 85% of responding PMs who feel they can keep forward commitments to under 90 days.

Also worth noting: Now, for the first time, there is some concern being expressed about the longer pull (late 1982 and early 1983). It's not that there isn't enough capacity—operating rates are down in the low 70% range. Rather, it's the fear that many vendors are playing their inventories close to the vest. When a pickup does come, they may not be able to move fast enough to meet a demand increase—especially in instances where capacity has been temporarily mothballed.

Two other longterm worries: a possible reduction in product lines as vendors move to streamline their operations, and the financial viability of some hard-hit suppliers. ***PW***

## Leadtimes and availability

**Chicago:** All component parts are available in a week or two. Softwood framing is out a bit (to 2 weeks). Ditto, sanded plywood and plyform (to 3). But common process stearate chemicals are in (to 1). No problems, either, with PVC (1), chlor-alkalis (3), chrome chemicals (½-1), and shrink film (5-6).

**Cleveland:** Everything is easy, with "on-demand" availability for alloying materials, natural kraft, and plywood. Other "no sweat" leads (in weeks): corrugated boxes (3), folding boxes (4), reconditioned steel drums (1-2), polyethylene and PVC (2), cold-finished aluminum (6-8), chipboard (3-4), and plastic shrink film (3).

**Houston:** Component parts are readily available across the board. Other typical leads (in weeks): stainless steel (1-2), corrugated (2-4), tungsten carbide parts (14-16), cast steel valves (13), carbon shop-fabricated pipe (17), alloy shop-fabricated pipe (22), mill steel (4-8), and steel castings (10-12).

**Los Angeles:** Some relatively minor changes—both up and down. Extended a bit (in weeks) are copper tubing (7-8), fasteners (5-7), and heavy-duty steel (11-12). But coming in are copper fittings (5-6), gray iron castings (4), brass castings (3-5), insulation materials (4-5), specialty wire (4-6), and pumps (4-6).

**Philadelphia:** Some chemical formulations are being discontinued, necessitating shifts. Caustic soda, meantime, has become readily available again. Standard pumps are unchanged (at 8-12 weeks), but could extend as production runs become less frequent. Standard valves are unchanged (at 6).

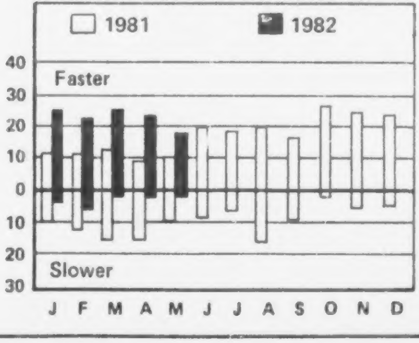
**Pittsburgh:** Some narrowing is noted in a few alloying materials, with these lower waits (in weeks): lead (2), silicon (2), and tin (4). Lumber and plywood remain unchanged (2-4). Ditto, steel strapping (2-3), maintenance paint (5), polyethylene and PVC (4), plastic bags (3-4), standard steel drums (2-3), and glassine paper (5-6).

## PW monthly procurement status report

Source: NAPM

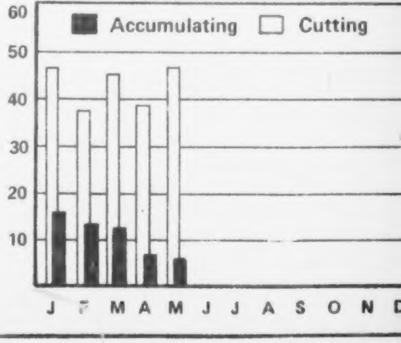
### Delivery performance

Percent reporting faster or slower deliveries



### Inventory strategy

Percent of respondents



# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 4½ | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 6½ | 6½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 7 | 7 | 6 |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 10 |
| Grey Iron Castings (LA) | 4 | 5 | 2 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 10½ |
| Capacitors (Chgo) | 13 | 13 | 5 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 7 | 7 | 8 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 13 | 13 | 6 |
| Relays (Chgo) | 15 | 15 | 12 |
| Resistors (Chgo) | 12 | 12 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 3 | 2½ | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | 1/5 | 1/5 | 1/5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 3 | 3 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 6 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 3½ |
| Drums, Steel. Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | 1½ | 1½ | 2½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 4 | 4 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 2 | 2½ |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2½ | 2½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 3 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 3 |
| Titanium Dioxide (LA) | 1½ | 1½ | 1 |

## Paper

| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

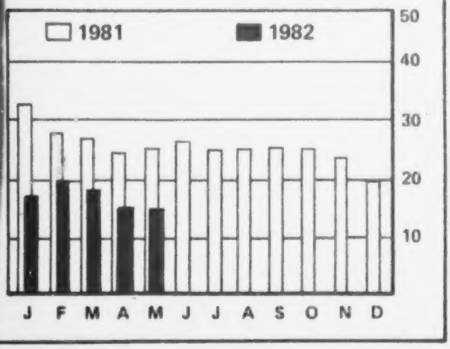
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 6 | 6 | 6 |
| Aluminum Plate (Chgo) | 7 | 7 | 8 |
| Aluminum Sheet (LA) | 12 | 12 | 11 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 4 | 7 | 4 |
| Brass Rods (Chgo) | 2½ | 2½ | 2½ |
| Brass Sheet (Chgo) | 5 | 5 | 5 |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 5½ | 6 | 5 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 5½ | 6 | 7 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 2 | 3 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 4 | 6 | 6 |
| Wire, Specialty (LA) | 5 | 6 | 6 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

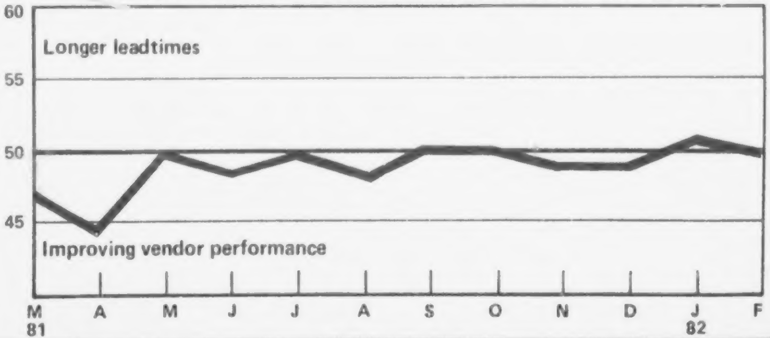
| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 52 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 6 | 3½ | 6 |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 37 | 37 | 37 |
| Heat Exchangers, Hi-pressure (Hous) | 46 | 46 | 46 |
| Insulation Mat'l. (LA) | 4½ | 5 | 5 |
| Machined Parts (Hous) | 9 | 9 | 12 |
| Pipes & Valves (Chgo) | 1 | 1 | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 5 | 9 | 4 |
| Rubber, Synthetic (LA) | 1 | 1 | 1½ |
| Rubber Hose (LA) | 7 | 7 | 7 |
| Tungsten Carbide Parts (Hous) | 15 | 15 | 16 |
| Valves, Cast Steel (Hous) | 13 | 13 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## Forward commitments

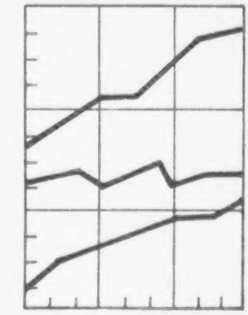


## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Latest scrap quotations



| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 59.00 | 64.00 | 100.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 54.00 | 63.00 | 96.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 50.00 | 60.00 | 87.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.533 | 0.620 | 0.760 |
| Copper, No. 2, East, wholesale buy, dlvd., lb. | 0.458 | 0.550 | 0.660 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.493 | 0.580 | 0.720 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.330 | 0.350 | 0.435 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.230 | 0.240 | 0.325 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.240 | 0.250 | 0.360 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.125 | 0.130 | 0.160 |
| Lead, clean solids, East, wholesale buy, dlvd., lb. | 0.140 | 0.140 | 0.230 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 7.00 | 8.00 | 15.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 6.00 | 7.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb. | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.060 | 0.080 | 0.135 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.11 | 0.13 | 0.35 |

# U.S. productivity up 2.2%

U.S. productivity performance last year wasn't all that bad—provided you were in on the manufacturing sector.

Specifically, our output per worker advanced at a fairly respectable 2.2% rate, up substantially from the previous year. But on a more negative note, the U.S. efficiency gain trailed that of some of our foreign competitors—with increases in the United Kingdom, Japan, West Germany, and France put at 5.8%, 2.9%, 2.6%, and 2.4%, respectively.

If it's any consolation, we did manage to come out ahead of a few other industrialized nations. Italy posted only a 2% advance and Canada managed to fashion only a fractional 0.6% increase. Also, the relatively subdued gains noted for Japan and Italy were well under year-earlier (1980) levels.

These figures, culled from a new Bureau of Labor Statistics report, can also be compared to pay hikes, yielding unit labor cost estimates. The latter numbers (calibrated in U.S. dollars) are quite discouraging—primarily because of our strong exchange rate.

Examples: While U.S. manufacturing unit labor costs rose 8.7%, some substantial declines were noted for West Germany (off 15.4%), France (off 11.2%), and Italy and the United Kingdom (both off 5.4%)." ***PW***

# Buyers' market here to stay

If current sagging factory utilization rates are any indication, today's all-out buyers' market is here to stay for quite some time.

These key measures of both availability and price pressures have been dropping steadily. Upshot: The average factory is now operating at only 70% of its potential.

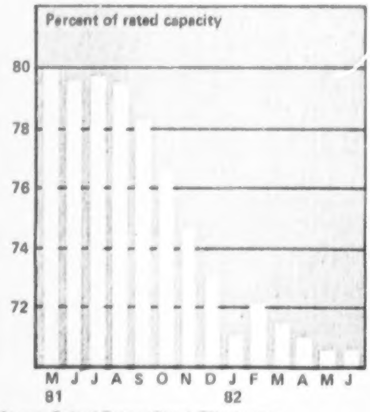
More important, any subsequent recovery is likely to be slow. The annual rate of economic growth over the next few years is put at only 4-5%. But since new capacity will still be coming on stream at a 2-3% annual rate, it may take until 1984 before an overall 80% operating rate (the minimum needed for a semblance of market balance) can be reattained.

And the situation is even more bearish for some of the basic raw material industries. Take metals, where utilization is put at only around 60%. And if you zero in on specific metals like steel and copper, the figures are even lower than that—under 50% for steel, and about 55% for copper.

Other basic materials, while not quite as low, also remain far under normal levels. Examples: textiles (around 70%) and chemicals (68%). To be sure, paper producers are still operating at near the 88% level.

Nor are the more highly fabricated industries faring that much better. Autos, farm equipment, and machine tools have been especially hard hit. But others haven't escaped either. The overall rate for "advanced processing" industries is put at only 73%—pretty close to the 69% low hit back in 1974-75. ***PW***

**Factory operating rates**

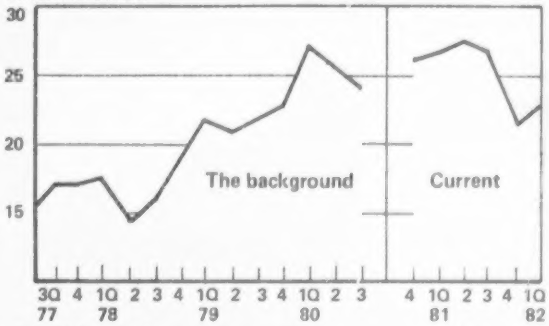


Source: Federal Reserve Board, PW estimates

## Leading indicators

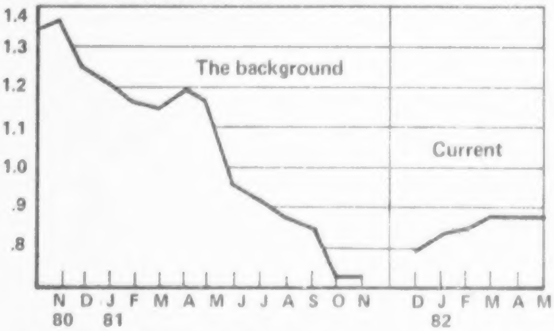
### 1. Capital appropriations

Billions of dollars



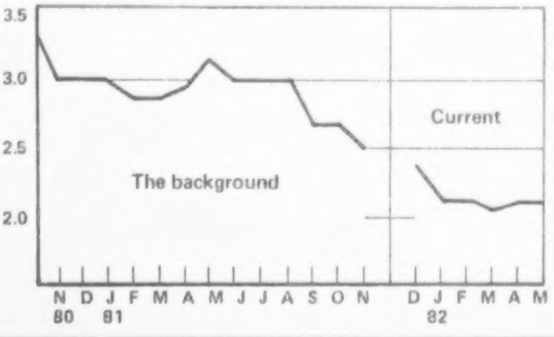
### 2. Housing permits

Millions of units, seasonally adjusted



### 3. Overtime hours

Hours, seasonally adjusted



**Business in brief:**

# Summer doldrums to continue

Bearishness is still the order of the day, with precious few signs of any meaningful economic pickup—at least as far as the summer months are concerned.

The latest reading of the NAPM Business Barometer (see chart below) tells the disappointing story. This key indicator of activity a few months down the pike dropped to a new low of 35 last month—some 15 points under the neutral 50 mark, and not much above the troughs hit back in 1974-75 and mid-1980.

To be sure, Uncle Sam's index of leading indicators has turned up a bit. But analysts both in and out of government remain cautious, noting that they would want to see two or three consecutive months of rise before projecting any imminent recovery.

Certainly, today's still-sky-high interest rates would seem to justify such caution. The cost of money would have to come down considerably before consumers begin spending on such big-ticket items as houses and cars.

These high interest rates—along with low (mid-70s) factory operating rates—also continue to have a negative impact on capital spending. One recent survey, for example, suggests that real outlays for plant and equipment could be off as much as 5% this year.

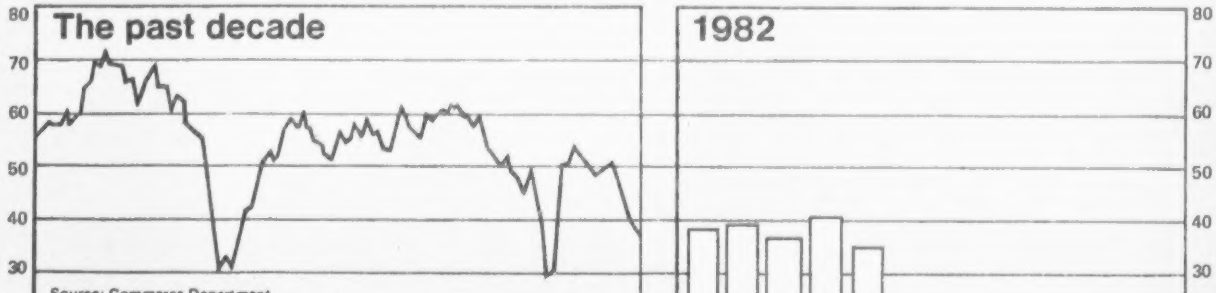
Capital appropriations, a lead indicator of future spending on new factories, also leaves quite a lot to be desired. True, this series is levelling off—and may even be inching up a bit (top chart). But it's entirely due to a stepup in petroleum, with no sign of any pickup in the critical manufacturing sector.

Construction statistics tell much the same story. Housing permits (a forerunner of starts) are still under 900,000 a year (center chart). While somewhat above the 720,000 annual rate of late 1981, it's nowhere near the 1,370,000 rate of late 1980.

Workforce figures are hardly worth shouting about either. Unemployment remains above 9%, and overtime (a sensitive index of current factory sentiment) comes to only 2.2 hours a week—far under the averages of last year (bottom chart). ***PW***

## NAPM business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



Source: Commerce Department

# Producer prices stagnant

The price lull is continuing—with industrial producer tags now virtually unchanged for the sixth straight month.

One of the softest areas over the past few weeks has been metals, with substantial discounting in many steel items and continuing declines in the nonferrous sector. On the latter score, aluminum, copper, lead, and zinc are at or near their lowest levels in years. And most producers in these industries are awash in a sea of red ink.

Industrial chemicals also remain easy—particularly organics. Ditto, manmade fibers. And the same is true of most plastic resins, though there have been some partially successful attempts to bring prices up a bit in this latter area.

Most highly-fabricated items are also feeling the pressure. Machinery tags, overall, are just barely rising. Indeed, zero in on selected machine tool lines, and you can probably find a fair amount of discounting.

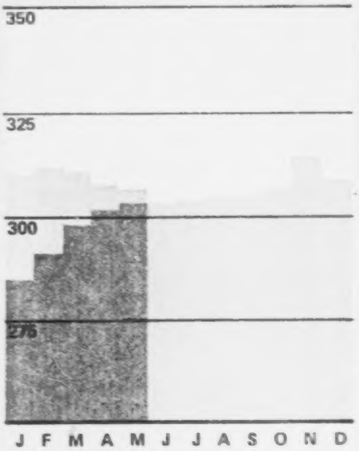
On the other hand, the energy price lull seems about over. Gasoline tags are moving up across the country. Add in continuing advances in electricity, and this is (or soon will be) the fastest rising price sector. ***PW***

## Industrial prices at a glance

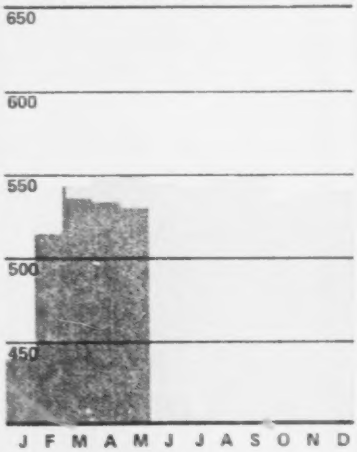
1981 ☐ 1982 ☐

### All items

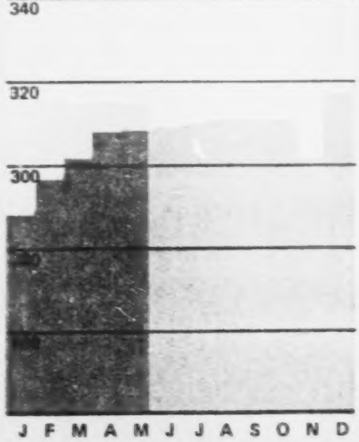
Index: 1967 = 100



### Raw materials



### Semifabs, components



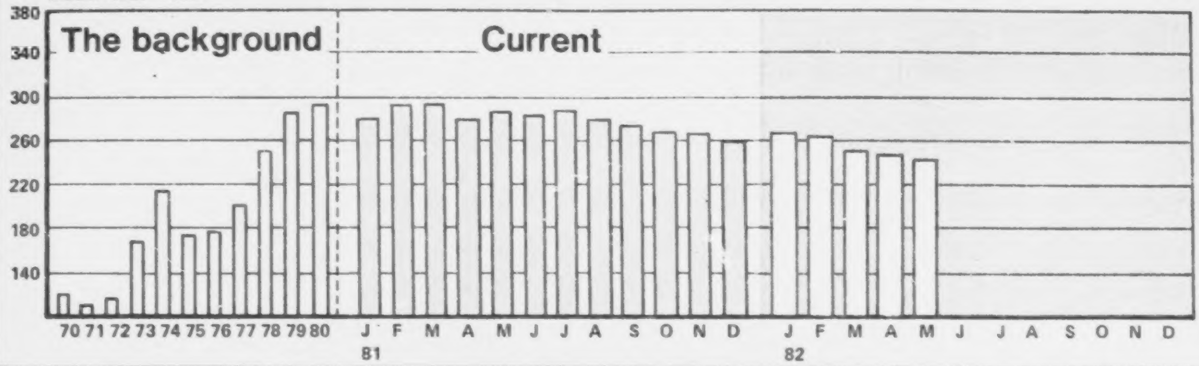
Source: Bureau of Labor Statistics

## This month's breakdown

| | Latest level (May) | Percent change from: Month ago | Percent change from: Year ago |
|---|---|---|---|
| Bearings | 334.0 | 0 | 13.9 |
| Bolts, nuts, etc. | 273.6 | 0 | 3.0 |
| Chemicals, inorganic | 317.0 | 1.1 | 11.5 |
| Chemicals, organic | 377.5 | –1.0 | –8.2 |
| Concrete products | 297.1 | 0.1 | 2.0 |
| Cutting tools, small | 277.0 | 0.1 | 5.7 |
| Electrical instruments | 258.3 | 0 | 15.8 |
| Electric lamps (bulbs) | 268.0 | 1.4 | 7.3 |
| Fans and blowers | 334.8 | 0 | 6.6 |
| Fittings, industrial | 309.1 | 0 | 2.0 |
| Foundry and forge products | 346.0 | 0 | 6.0 |
| Fuel oil (residual) | 1189.4 | 0.9 | –9.8 |
| Furniture, commercial | 275.5 | 0.4 | 6.9 |
| Gasoline | 610.0 | –4.2 | –18.2 |
| Glass, flat | 216.2 | 0 | 2.9 |
| Glass containers | 357.4 | 0 | 6.5 |
| Gypsum products | 259.4 | –1.3 | –0.7 |
| Hand tools | 333.2 | 0.5 | 7.6 |
| Hand tools, power driven | 221.3 | 0.7 | 4.3 |
| Industrial furnaces | 352.4 | 1.0 | 5.2 |
| Integrating and measuring instruments | 212.7 | 0.8 | 8.5 |
| Internal combustion engines | 324.9 | 1.5 | 9.3 |
| Lubricating oil | 888.1 | 0 | 0.8 |
| Lumber millwork | 275.8 | –0.2 | 0.4 |
| Material handling equipment | 288.3 | –0.1 | 4.0 |
| Metal containers | 330.1 | 0.1 | 5.1 |
| Metal mill shapes (nonferrous) | 299.8 | –0.1 | –1.2 |
| Metal tanks | 312.4 | –0.1 | 3.2 |
| Motors and generators | 311.7 | 0 | 7.4 |
| Motor trucks | 276.5 | 2.3 | 6.1 |
| Office and store equipment | 151.0 | 0 | 2.9 |
| Paperboard | 258.8 | –0.9 | 0 |
| Paper boxes and shipping containers | 251.4 | –0.3 | 3.2 |
| Paper office supplies | 223.3 | 0.6 | 4.6 |
| Paint | 265.1 | 2.2 | 6.0 |
| Plastic resins | 285.4 | –0.2 | –0.9 |
| Precisison measuring tools | 238.6 | 1.1 | 8.6 |
| Pumps and compressors | 348.6 | 0.4 | 8.3 |
| Refractories | 340.4 | 0.2 | 12.0 |
| Rubber belts and belting | 330.4 | 0.3 | 15.8 |
| Scales and balances | 234.9 | 0 | 6.1 |
| Steel products | 350.9 | 0 | 6.1 |
| Switchgear | 260.0 | 0.2 | 4.6 |
| Textiles, synthetic fibers | 164.3 | 1.4 | 5.1 |
| Textiles, gray fabrics | 145.5 | –0.2 | –0.2 |
| Tires and tubes | 255.0 | 0.2 | 1.5 |
| Transformers and power regulators | 222.8 | 0.2 | 7.9 |
| Valves, industrial | 327.9 | 0.1 | 4.3 |
| Welding equipment | 267.2 | 0 | 2.8 |
| Wire and cable | 208.2 | 0.1 | 0 |

# PW raw material price barometer

| | |
|---|---|
| Latest month | 246.6 |
| Month before | 247.4 |
| Year ago | 288.9 |



# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Chi., cwt | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Los Angeles, cwt | 24.40 | 23.40 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt | 31.00 | 31.00 | 29.20 |
| Steel, plates, Chi., cwt | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt | 20.80 | 20.80 | 19.50 |
| Steel, sheets, C.R., Detroit, cwt | 24.65 | 24.65 | 23.15 |
| Steel, strip, C.R., Chi., cwt | 29.05 | 29.05 | 28.85 |
| Steel, basic wire, Pitts., cwt | 23.65 | 23.65 | 24.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H14 3003, .04 in., 48x144, mill fin., lb | 1.02 | 1.02 | 1.02 |
| Antimony, in alloy, lb | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb | 1.17 | 1.20 | 1.26 |
| Brass, yellow, [sheet], lb | 1.11 | 1.14 | 1.20 |
| Cadmium, ton lots, lb | 1.10 | 1.10 | 2.00 |
| Copper, electrolytic, wire bars, refd., lb | 0.74 | 0.78 | 0.85 |
| Copper sheet, over 24 in., lb | 1.26 | 1.29 | 1.35 |
| Lead, common, N.Y., lb | 0.25 | 0.26 | 0.38 |
| Magnesium, pig ingot, [99.8%], lb | 1.34 | 1.34 | 1.25 |
| Mercury, 20 fl. lots, N.Y., fl | 365.00 | 364.00 | 415.00 |
| Molybdenum Climax Oxide/bags, lb | 8.50 | 8.50 | 9.35 |
| Nickel, electrolytic, producer, lb | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz | 6.44 | 7.13 | 10.20 |
| Tin, Straights, N.Y., lb | 6.53 | 6.59 | 6.46 |
| Zinc, Prime West, East St. Louis, lb | 0.350 | 0.380 | 0.459 |
| Zinc, die casting alloy No. 3, lb | 0.415 | 0.445 | 0.518 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb | 0.460 | 0.460 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal | 1.52 | 1.52 | 1.77 |
| Caustic soda, 76% solid, drums, carlots, cwt | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb | 0.66 | 0.66 | 0.62 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb | 0.805 | 0.805 | 0.760 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.315 | 0.345 | 0.345 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.750 |
| Naphthalene, crude, tanks, lb | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb | 0.42 | 0.42 | 0.38 |
| Polyethylene resin, low density liner film grade (market price), lb | 0.27 | 0.29 | 0.39 |
| Polypropylene, homopolymer grade (market price), lb | 0.38 | 0.38 | 0.40 |
| Polystyrene, general purpose grade (market price) lb | 0.37 | 0.38 | 0.45 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt | 46.50 | 46.50 | 45.00 |
| Shellac, bone dry, N.Y., lb | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb | 0.375 | 0.375 | 0.410 |
| Sulphur, crude, ex-terminal, Tampa, Fla., long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 78.19 |
| Titanium dioxide, anatase, reg., carlots lb | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal | 1.45 | 1.48 | 1.50 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20 lb., 4 cartons, cwt | 68.60 | 68.60 | 68.60 |
| Gummed sealing tape, carton | 15.70 | 15.70 | 14.80 |
| Offset paper, No. 1 Grade | 49.70 | 49.70 | 40.55 |
| Folding boxboard, white clay coated 80 bright, ton | 403.62 | 404.86 | 399.29 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 26.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 270.00 | 300.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 307.49 | 306.79 | 332.50 |
| Lumber 2x2, pine, mbf, cl | 284.55 | 284.47 | 307.15 |
| Plywood, plyform, 3/4", msi, cl | 581.05 | 581.75 | 608.37 |
| Plywood, 5/8", msf, cl | 329.79 | 335.38 | 360.24 |
| Cement, bulk, ton, tl | 62.42 | 62.59 | 60.22 |
| Sand, ton, cl | 6.07 | 5.03 | 6.09 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd | 45.77 | 46.12 | 44.79 |
| Crushed stone, 1½", ton, cl | 7.86 | 7.74 | 7.49 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.74 | 0.74 | 0.68 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 154.57 | 154.40 | 147.38 |
| Brick, common, per thousand, tl | 175.60 | 174.80 | 163.06 |
| Asphalt paving, AC-20 | 161.57 | 162.29 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.52 | 6.69 | 6.46 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd | 0.240 | 0.244 | 0.246 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd | 1.00 | 1.00 | 1.02 |
| Cotton middling, 1", N.Y., lb | 0.604 | 0.641 | 0.810 |
| Printcloth, 48", 80x80, N.Y., spot, yd | 0.630 | 0.630 | 0.850 |
| Army duck, 37", 13 oz., yd | 1.70 | 1.70 | 1.70 |
| Blended printcloth, 64", 78x54, yd | 0.590 | 0.625 | 0.770 |
| 20s combed yarns | 1.72 | 1.72 | 1.88 |
| Wool tops, N.Y., lb | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb | 0.435 | 0.475 | 0.460 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb | 0.468 | 0.460 | 0.580 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl | 25.75 | 24.75 | 23.75 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 31.30 | 31.30 | 35.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal | 0.920 | 0.880 | 1.048 |
| Gasoline, 94 oct., reg., Chi., tank car, gal | 0.956 | 0.855 | 1.035 |
| Heating oil, No. 2, Chi., bulk, gal | 0.945 | 0.850 | 1.005 |
| Heating oil, No. 2, N.Y., bulk, gal | 0.943 | 0.903 | 1.033 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl | 25.10 | 23.70 | 25.50 |
| Jet kerosene, gal | 0.900 | 0.840 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.34 | 0.34 | 0.46 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

# NOTE

ONLY THE FOLLOWING PAGES OF THIS

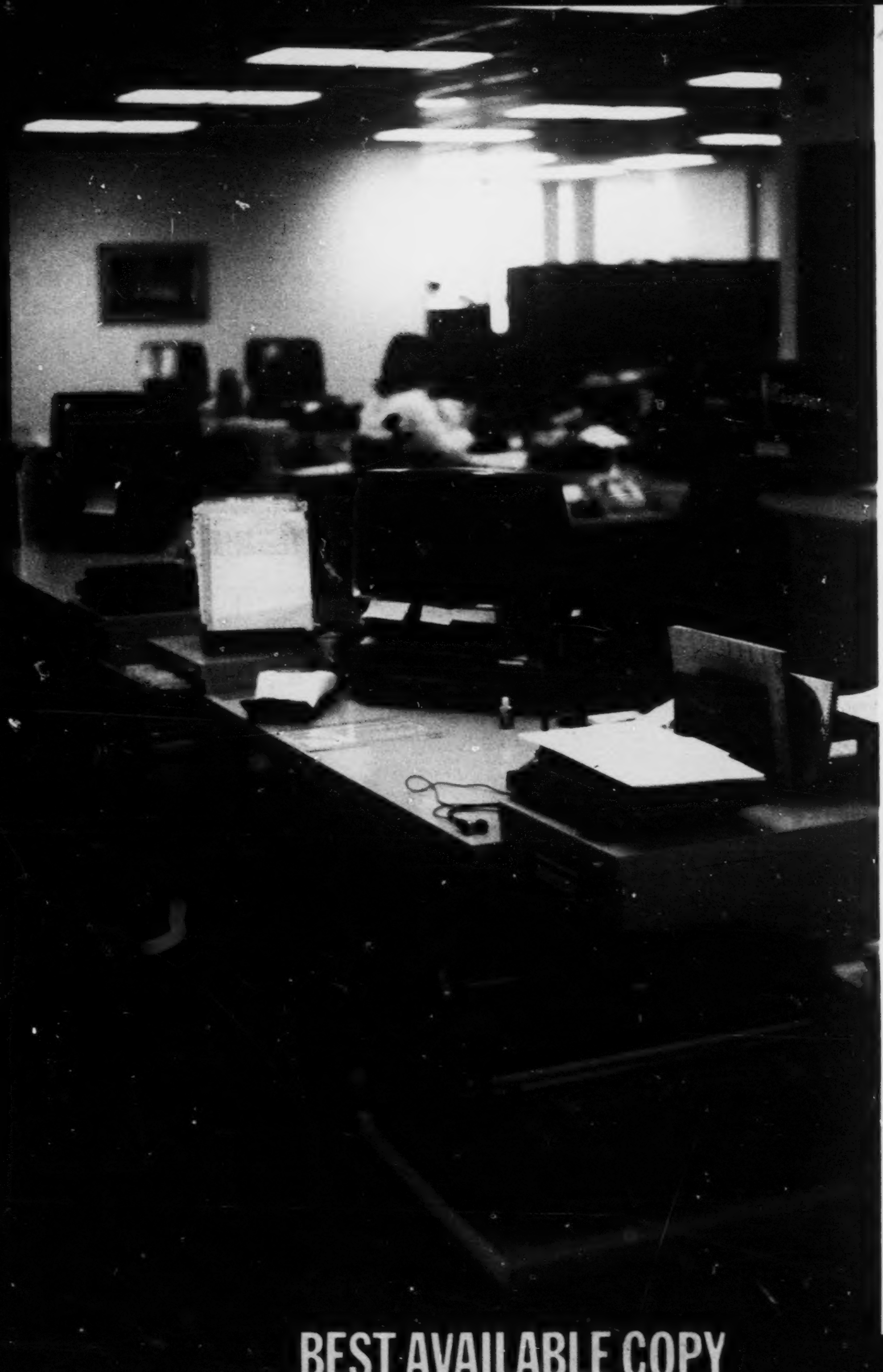
PUBLICATION HAVE BEEN FILMED

Cover 1, p. 5, 10, 14-16,

32, 80-82, 84, 88.

August 1982

# PurchasingWorld®



/ C8650-2

## What's Ahead

**Discounting** continues across the board, and PMs report that list prices are now just negotiation starting points (p. 10).

**Plastics demand** will be off 2-4% this year, but 1983 looks more bullish, with a 4-6% advance expected (p. 14).

**Real GNP growth** will end the year showing only a 1.2% advance, according to a composite forecast from 600 purchasing managers (p. 32).

**Truck fleet** costs are zooming up at almost double the general inflation rate (p. 34).

## Buying office systems equipment —page 52

Many purchasing departments are taking on new responsibilities as the result of the complexities of buying new, sophisticated business systems. As purchasing planning and coordination are brought to bear on these buys, companies are reaping the benefits of better service and lower costs. Our article on page 52 describes how several companies are meeting this challenge. *(Photo courtesy The Quaker Oats Co.)*

BEST AVAILABLE COPY

**PurchasingWorld**® Vol. 26, No. 8 - August 1982

# Helping you manage the business of buying

**Editorial Staff**

Editorial Director
**Paul V. Farrell**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichard†**

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Editorial Assistant
**Barbara Axelson**

Art Director
**Richard Trefilek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

873 Third Avenue
New York, New York 10022
Phone: 212-605-9400

Technical Publishing
DB a company of The Dun & Bradstreet Corporation
1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312—381-1840

10 **Discounting runs the gamut.** Rare is the PM who is paying list these days, according to the majority of buying executives responding to ***PurchasingWorld'***s latest nationwide business conditions survey.

32 **Your forecast for 1982.** Here's the composite outlook for this year as reported by more than 600 purchasing managers who put on their forecasting hats for ***PurchasingWorld'***s 1982 Crystal Ball Contest.

34 **Truck fleet costs show hefty advances.** Latest figures show that the already high cost of operating a fleet of trucks continues to move even higher—almost double the inflation rate.

43 *PW TechFile:* **Cyanoacrylate adhesives.** Cyanoacrylate adhesives—the so-called 'superglues'—are excellent choices for many bonding applications. Here's a rundown on the adhesives within the cyanoacrylate family.

47 **Should you lock in suppliers by buying production capacity?** Here's how coordination of production can bring buyers and vendors closer to longrange improvements in cost, quality, and leadtimes.

50 **Who and where are those minority suppliers?** These listings will help you scout for information on potential sources.

52 **Purchasing planning and coordination can bring better office systems buys.** Centralized buying for traditional office products as well as computerized business systems can make for better service and lower costs.

## Around the purchasing world

14 ***PW* Predicts**

20 ***PurchasingWorld* Perspective**

24 **Effective Negotiating**

26 **Purchasing and the Law**

28 **Principles of Value Analysis**

58 **NAPM Perspective**

60 **Transportation Briefing**

62 **Labor Perspective***

66 **Product Briefs***

70 **Product Information***

72 **Price Perspective**

80 **Procurement Status Report**

82 **Business in Brief**

84 **Industrial Prices at a Glance**

88 **Raw Materials Price Barometer**

* Regional issues

---

ABP

BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation. 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. ©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659

# Discounting runs the gamut

Rare is the PM who is paying list these days.

So say the majority of buying managers responding to ***Purchasing-World's*** latest nationwide business conditions survey. Indeed, in more cases than not, the official book quotes are now just the starting point for serious negotiation.

As one Cleveland-based PM puts it, "The combination of low consumption, continued inventory paring, excess capacity, and foreign competition has knocked the props out from under the pricing structure. There's very little we can't bargain on these days—and in more than a few instances we're paying less than a year ago."

To be sure, not every product has been equally affected. And there are still some lines where lists remain fairly firm. But these are now the exceptions rather than the general rule.

The overall discount picture shapes up along these lines:

■ **Behind the shakiness:** Supply-demand imbalance is the factor most often mentioned—though many feel that their own hard-nosed bargaining and import competition are contributing factors. The latter, they add, is particularly significant for steel, nonferrous metals, and many component parts.

■ **Type of concession:** Roughly one out of every two cite all of the following: outright cash discounts (including rebates), extended price guarantees (sometimes running out as long as a year), easier terms of sale, and freight absorption. Other approaches receiving considerable mention include improved servicing, the throwing in of extras, shipment of higher-than-paid-for quality, bigger volume discounts, and the elimination of minimum order quantities.

■ **The overall impact:** The average price break is put at just about 5%—with an impressive 63% of the respondents putting the net reduction off list in the 3-6% range. A few are even luckier—with one out of 10 managing to knock an average of 9% or more off official lists.

■ **Product-by-product impact:** Areas where transaction prices are said to be barely even with or actually under yearago levels now include carbon steel, stainless steel, aluminum, copper, tin, silver, lumber, fasteners, fittings, plastic resins, petrochemicals, packaging, paper products, electric controls, electronic components, extrusions, fittings, petroleum products, chains, and coated abrasives.

■ **The nearterm outlook:** There's considerable difference of opinion as to when quotes will begin to firm up again—though virtually everybody agrees that prices will have to go up sooner or later. Some 20% feel that the drying up of current price shading could begin as early as this fall. The numbers of PMs picking the first and second quarters of next year as the turning point are 27% and 40% respectively—with the remaining 13% putting the pickup sometime beyond mid-1983.

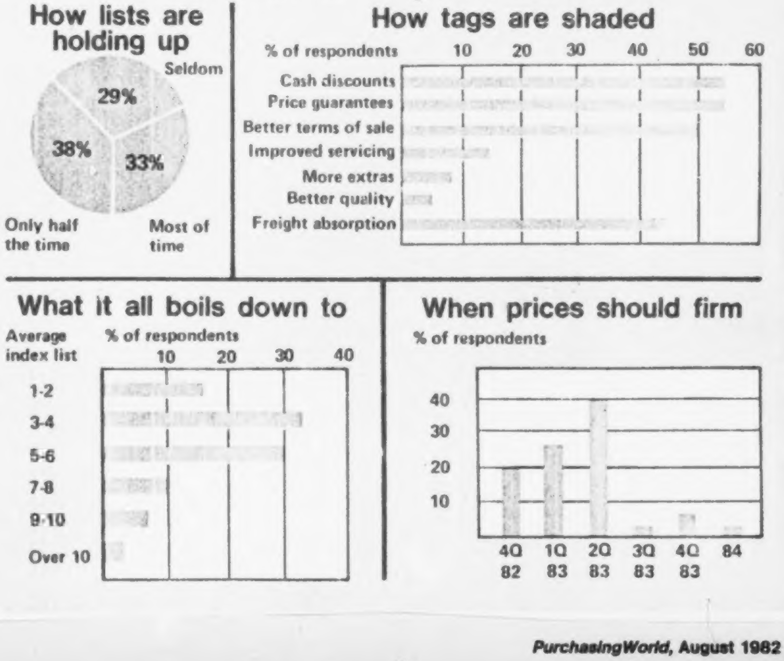
One import-oriented buyer feels that the strength of the dollar could be a major determinant of when prices begin to firm. He observes that the 30% or so appreciation of the dollar over the past few years has made incoming shipments a lot cheaper—and in the process has also forced domestic producers to toe the line. His conclusion: If the dollar remains strong, future hikes will continue to be hard to come by.

But perhaps the most important price-determining factor is the strength of the upcoming business recovery. Observes one purchasing vice president, "We'll have to see a substantial increase in GNP and production before all the discounting starts to fade. Operating rates, for example, would have to advance from the current 70% level to near 80%—and I honestly don't see this happening until sometime after mid-1983."

Meantime, buying executives continue to put pressure on suppliers. Some of today's more popular approaches: (1) requirement of full cost-justification for any boost, (2) across-the-board insistance of no price hike before yearend, (3) more longterm contracts with price guarantees, and (4) more limited contract escalation clauses.

As one PM sums it up, "I know what we're doing is hard on our suppliers. Sure, we want to be fair. But keeping costs down now is a matter of survival—and we mean to survive." ***PW***

Portrait of a buyers' market



# PW Predicts...

By Robert S. Reichard, prices, economics editor

# Energy tags to climb slightly

Look for energy tabs to start accelerating a bit—if not later this year, then certainly in early 1983. But the increases will generally be in the tolerable range.

Individual fuel and power advances (third quarter 1982 compared to second quarter 1982) should shape up something along these lines: gasoline (9.2%), No. 2 heating oil at wholesale (5.1%), No. 6 residual fuel oil (0.6%), kerosene jet fuel (6.5%), utility coal (4.1%), utility natural gas (5.5%), residential electictiy rates (-1.5%).

The projections, culled from a new Department of Energy study, assumed that OPEC crude oil will remain stable through yearend and then (in 1983) move up at the general inflation rate.

Some of the report's other specific comments:

■ **Gasoline:** Prices will edge up in the months immediately ahead as inventories decline. Further small advances seem likely early next year as crude oil costs rise.

■ **Heating oil:** Retail tags will hold steady through yearend—with some seasonal hikes possible toward winter. But about 5¢/gallon could be added onto quotes in the first half 1983 on the strength of higher crude costs.

■ **Residual fuel oil:** Seasonal demand could make for some late 1982 advances. And, as in the case of distillate, rising crude costs will mean further increases in early 1983.

■ **Electricity:** Residential rates are projected to rise about 10% (all 1982 vs. 1981). But the quarter-to-quarter trend will be basically level as coal and oil cost pressures subside.

## Copper

Still no signs of any meaningful upturn

## The plastics price scene

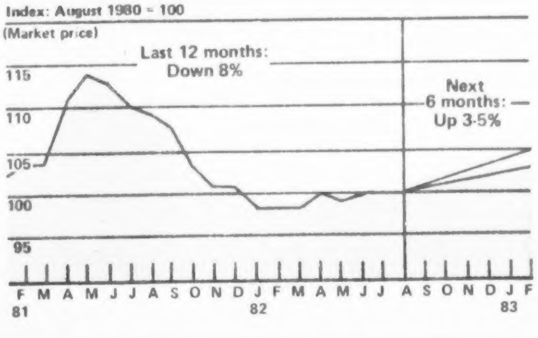
**CURRENT SITUATION: Prices, while showing signs of bottoming out, remain at very low levels.** Indeed, look at the major commodity resins and two facts stand out: (1) substantial discounts are still available for big volume buyers and (2) virtually all quotes are running well under last year's highs. Most of the downward pressure, of course, stems from poor demand (off 10% or so for the year to date) and overcapacity (current operating rates now average out in the low 60s range—with ABS and polystyrene (PS) sporting even lower levels).

**DEMAND: Even if a modest second half pickup is factored in, usage for the year as a whole will still be off some 2-4%.** Sharpest declines look to be in ABS, PVC, and PS. On the other hand, polypropylene (PP) and both low- and high-density polyethylene (LDPE and HDPE) could conceivably break even or even rack up some fractional gains. **Next year, however, looks a lot more bullish,** with HDPE and ABS leading the industry to a 4-6% advance.

**SUPPLY: Low operating rates tell the story here.** Even with some second half demand pickup, the average 1982 utilization rate won't rise out of the 60s. **Nor is any appreciable change seen for next year**—as the expected 4-6% demand gain is offset by an equally large boost in new capacity. Indeed, only HDPE and PP are expected to move into the respectable 75-80% range in 1983. **Supplies should be ample in 1984, too** (thanks to another 3-4% jump in capacity)—except for PP which could move into the 85% range at that time.

**PRICE OUTLOOK: New attempts to reduce discounts should meet with increasing success toward yearend.** Even so, the all-industry market quote for 1982 as a whole will still remain 7-8% under 1981 levels. True, somewhat heftier rises are anticipated for 1983, **but overcapacity will prevent any reattainment of early 1981 peaks until late in the year.** LDPE, for example, should average only in the mid-30s range next year—with a 40¢/lb-or-so quote seen for HDPE, PP, and PS. But PVC will be hard put to reach even the mid-20s range.

### Plastic resins



as demand (hard hit by sagging automotive and construction markets) continues to disappoint. Prices, meantime, are backing and filling in the 60s to low 70s range—despite continued production cutbacks in both the United States and Canada. One of the problems—aside from low demand—is that third world countries continue to produce as if there were no tomorrow. In any event, all signs point to about a 100,000-ton global surplus this year—enough to prevent the red metal from rising back into the 90¢/lb-plus breakeven-point range anytime soon.

### Aluminum

Buyers remain in the saddle—with quadruple discounts available on common alloy, and the basic ingot on the spot market going for well under 50¢/lb (in marked contrast to the official 76¢/lb list). An earlier hike in can body stock has also been rolled back. Moreover, little nearterm recovery is seen despite continuing cutbacks which have brought the overall U.S. operating rate into the low 60s. But the industry remains cautiously optimistic for 1983—based on the hope of a consumer durable goods recovery. And for the Free World as a whole, the feeling is that next year's demand could rise as much as 8-10% above depressed 1982 levels.

### Tall oil

The combination of slumping demand and heavy stocks is putting new downward pressure on tags. On the inventory front, for example, crude tall oil stocks are running close to 15% above year-earlier levels—and holdings of tall oil resin are said to be triple year-earlier levels. Upshot: Third quarter quotes for crude tall oil could be off $10-20/ton for higher grades and $30-40/ton for lower grades. And bulk quantities of tall oil resin can now probably be had in the low 30-32¢/lb range—well under the high-30s range of a few months back.

### Stainless steel

Flat rolled prices continue to tumble. Exports now suggest that buyers are getting as much as 20% off existing lists. Biggest bargains are said to be in Type 316 material. Nor is any nearterm turnaround indicated, as producers themselves admit that overall 1982 shipments of flat rolled products could drop as much as 20% this year. Total stainless demand will be down, too. Some observers put total shipments at under one million tons—well below the 1.2 million estimate made at the beginning of the year.

### Ammonia

Usage, running better than 10% behind last year's levels, is putting new downward pressure on prices. Inventories are another problem, with current totals up some 50% above year-earlier readings. In any case, Gulf Coast barge prices have recently been quoted at $125/ton and less—far under the $150-160/ton average of a few months back, and probably even under average production costs. Nor is any nearterm market shift anticipated. There are already signs that financially squeezed farmers may delay mass application of nitrogen fertilizers until next spring. Another factor: The strong

## The steel price scene

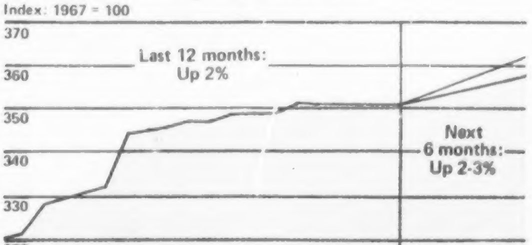
**CURRENT SITUATION: The industry is on the ropes**—with operating rates dropping under the 50% mark and more than 40% of the workforce currently idled. **There's plenty of discounting, too.** Right now, for example, the composite domestic price is probably only in the $580/ton range—about 5% under lists which have been holding steady since last fall. **Zero in on imports, and tags are considerably lower than that**—with some sources putting the composite import quote in the low 500s range.

**DEMAND: Look for some modest improvement over the miserable first half when only 34 million tons were shipped.** Best bet: About 19 million tons and 22 million tons will clear the market over the third and fourth quarters, respectively. **But that would still put total 1982 domestic shipments at only 75 million tons**—off 14% from last year. Weakest demand will be in the farm and rail equipment sectors. Inventory paring will also hurt as more than four million tons are lopped off aggregate stocks this year—**though some modest accumulation is possible this fall if business activity picks up.**

**SUPPLY: The above demand projections guarantee clear sailing through the rest of 1982**—a conclusion confirmed by both service centers and buyers who now see everything in ample or more-than-ample supply through fall. Steel imports will also add to the glut. True, incoming shipments may tail off in view of new penalty duties. But totals for the year will still be in the 14-15 million-ton range. **No sweat for 1983 either—as steel's key auto, construction, and machinery markets show only modest improvement.**

**PRICE OUTLOOK: Quotes are about as low as they're going to go.** The simple fact is that mills, already awash in a sea of red ink, cannot afford any more concessions. Indeed, the question is not whether tags will rise, but rather when and by how much. Assume modest import restraint and gradual GNP growth—and some drying up of discounts is likely by yearend—**with perhaps even a small hike in lists possible by early next year.**

Steel mill products



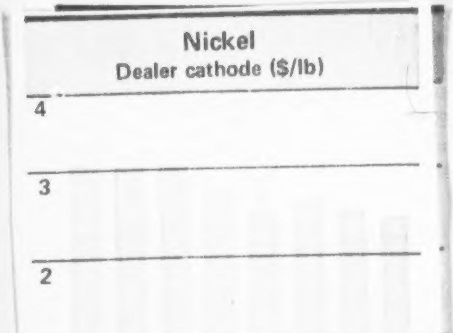
dollar is discouraging exports and encouraging cheap imports.

## Zinc

The plating and alloying metal is staging something of a comeback. Prices are now considerbly above the low 32¢/lb trough hit back in early June. Behind the surprising buoyancy: Extended summer plant shutdowns and rising cost pressures. Also on a somewhat bullish note, consumer inventories remain quite low (about 80,000 tons at last report). But there are some doubts as to whether the new levels can hold—given today's low consumption levels. Best bet: continued discounting—but from somewhat higher book levels.

## Sulphur

Hurt by low demand, Canadian prices are beginning to tumble. FOB Vancouver quotes have dropped about $6-7/ton on shipments to the United States—and the extension of more generous payment terms (from 30 days up into the 60-90 day range) has probably saved buyers another $5-6/ton. Not surprisingly, U.S. producers of recovered sulphur are following suit. But not so domestic French producers who are holding firm near their $147.50/long ton quote as they cut production to meet smaller demand. But this price, too, could soften—as all projections suggest an oversupplied situation through 1983.



## Lead

Somewhat more robust buying by battery makers should buoy up prices a bit over the next few months. But it is highly unlikely that the market can sustain quotes above the 30¢/lb mark anytime soon. One reason: New car production (and hence the demand for batteries) is still far too low. Then, too, there's a lot of mothballed capacity around (secondary producers are currently operating at less than half their potential). True, a 4-5% demand gain is possible next year. But the longterm advance will be a lot more modest than that as more longer-lasting and lighterweight batteries hit the market.

## Titanium

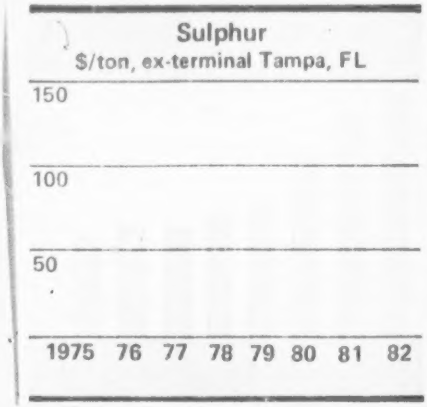
Markets are in a state of disarray—as commercial aircraft demand continues to falter. Most mill-product producers are discounting by as much as 5%—with further confirmation coming from one producer who is telling customers that its bar, billet, plate, sheet, and strip are all "flexible." Distributor bargains are around, too. Some hard-pressed outfits are selling bar and billet some $5-6/lb under producer lists. Adding to the weakness are low sponge prices—with the Soviets offering material for as little as $225/lb.

## Polystyrene

Take the new boost (pushing the list for general purpose material up another 2¢/lb—to 45¢/lb) with a couple of grains of salt. Given continued supply-demand imbalance, all signs point to continued discounting, with volume buys available in the low 37-39¢/lb range. If there's any doubt as to buying clout, take a look at operating rates which at latest report were still in the extremely low 50-60% range. The failure of key feedstock (styrene) to rise should also be a nearterm price-rise inhibitor.

## Nickel

The relatively quick end of the Inco strike should keep prices under continued downward pressure. Indeed, spot quotes will continue in the low $2.50/lb range for at least another few months (far under the official $3.20/lb list)—despite production cutbacks. The problem, of course, is sagging demand—with Free World usage hard put to even approach last year's 1.11-billion-lb level. True, relatively good gains are seen for next year. But even so, supplies will remain more than ample. So it may not be until mid or late 1983 before current list levels can be reattained—and even that may be wishful thinking on the part of producers.



## Machinery

Official price indexes have levelled off after the 9% and higher boosts of last year. And even this doesn't tell the whole story—for there is now plenty of price shading as orders continue to run well under 1981 levels. The situation is particularly bearish in machine tools where bookings lag yearago levels by near 50%. But look for somewhat firmer prices by early next year. Indeed, given pent-up cost pressures and an expected demand pickup, quotes should advance by about 7% on average next year—and maybe by an even slightly faster 8% in 1984. ***PW***

# Your forecast for 1982

## How the year stacks up—as predicted by hundreds of your peers

The good news is that 1982 will end with substantially reduced inflation. The bad news is that other major business indicators will also be down.

That's the composite outlook for this year as reported by more than 600 purchasing managers who put on their forecasting hats for ***Purchasing-World***'s 1982 Crystal Ball contest.

In what amounts to perhaps the largest survey of its type ever conducted, the readers of ***PurchasingWorld*** sent in their 1982 forecasts in the hopes of winning a Victor 9000 desktop computer for their abilities to devine the future of the economy. The results: a forecast that represents the collective thinking of the purchasing professionals who make it their business to anticipate the swings in the national economy.

In a similar contest last year, our readers came amazingly close to predicting actual yearend levels of five leading indicators. In fact, the average final forecast for all five indicators was less than one percentage point off from official government measures.

Our 600 forecasters see 1982 shaping up along these lines:

- Real GNP growth—up 1.2%
- GNP implicit price deflator—up 7.3%
- Industrial producer price index—up 8.8%
- Consumer price index—up 8.5%
- Capital spending (in current dollars)—up 8.1%
- Industrial production index—up 2.4%
- Factory operating rates—down by 1.5 percentage points.

### Renewed price increases

The purchasing managers' forecast on price levels is significant in that it shows an expectation of new increases. Although PMs are well aware of the dramatic drop in inflation rates over the first half of this year, they still expect the annual rate to end up at over 8%. This can be taken as an indication that PMs expect their suppliers to attempt to recoup early profit losses with a new round of price hikes.

Even so, their forecasts of increases compare favorably with last year's experience. Respective hikes of 7.3%, 8.8%, and 8.5% for the GNP deflator, PPI, and CPI are still nowhere near last year's rises of 8.6%, 10.7%, and 10.4%. These numbers would seem to indicate some confidence that inflation is being controlled—albeit at the expense of growth.

### On the dark side

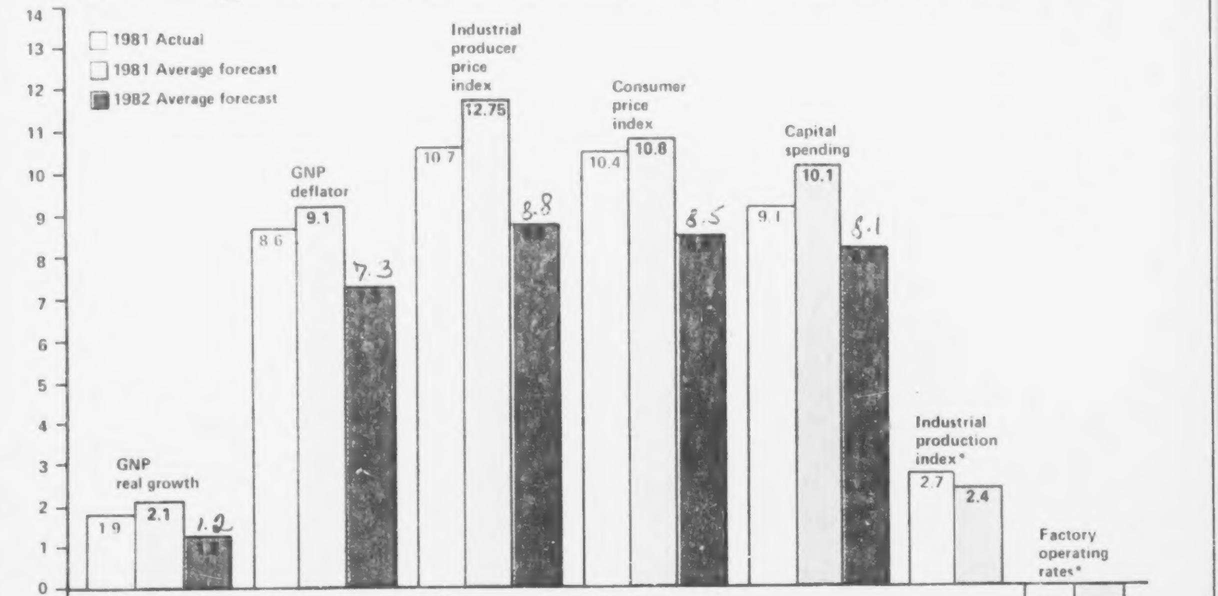
While the news on prices might be encouraging, the forecasts on growth leave little cause for satisfaction. Real GNP growth, for example, shows up at a dismal 1.2%, well below last year's 1.9% rate and far from the average 3.2% rate over the 1966-79 period. And even this projection is slightly optimistic in comparison to the numbers being released by the major econometric firms.

Add in the low forecast for the industrial production index (2.4%) and the expectation that factory operating rates will actually decline slightly (by 1.5 percentage points), and it's easy to see why purchasing managers don't look for much expansion in the gross national product.

Actual figures for 1981 are compared with ***PurchasingWorld*** readers' forecasts for 1981 and 1982.

The final scorecard on just how close you've called the shots will be published early next year. ***PW***

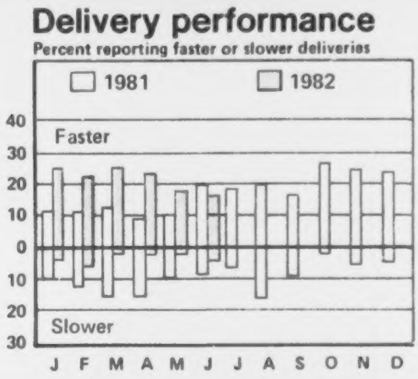
*PurchasingWorld* readers forecast major indicators for 1982



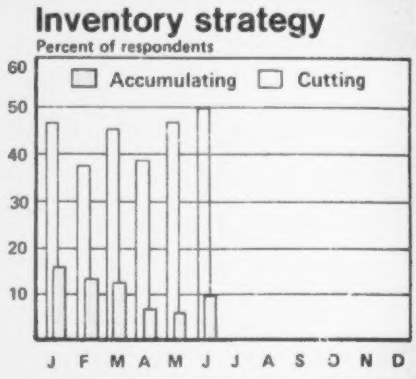
*No forecast in 1981

# PW monthly procurement status report

Source: NAPM


Delivery performance

Percent reporting faster or slower deliveries


Inventory strategy

Percent of respondents

# Summer leadtimes shrink slightly, no serious problems foreseen

The summer ordering lull is pushing overall leadtimes in a bit further—with ***PurchasingWorld's*** exclusive leadtime index edging down to 49—slightly under the neutral level of 50, which signifies no change (details chart next page).

But several buyers say this is typical of this time of year—and, as such, see the possibility of a modest fall stretchout as seasonal demand picks up and business slowly begins to recover from current lows.

On the other hand, few see any serious problems this fall or winter—primarily because factory capacity continues to hover in the low-70% range.

In any event, PMs continue to play things as close to the vest as possible—and with good reason: Not one single item is now listed by the NAPM as being in short supply.

Other telltale signs of an all-out buyers market:

- **Delivery times**: Speedier service is reported by 18% of the PMs queried, while only 5% say things have slowed.
- **Inventories**: Paring continues—both because of ready availability and reduced need. At latest report, the parers were outnumbering the accumulators by a hefty 5:1 margin—50% paring and only 10% adding to stocks.
- **Buying policy**: Only 15% say they are now committing 90 days or more in advance—a continuation of the low level that has prevailed since spring. ***PW***

## Leadtimes and availability

**Chicago:** Somewhat shorter waits (in weeks) are noted for shrink film (4-6), printed circuit boards (6-8), and resistors (8-12). Paper is readily available with dealer stocking making for only 1-day waits. But out a bit are aluminum coil (6-8), and softwood framing (3).

**Cleveland:** Paints are in slightly (2-3 weeks for coil coating and 1-2 weeks for maintenance types). Ditto, cold-finished aluminum (to only 6). No changes for corrugated (3), folding cartons (4), 2-ply fiber drums (2), polyethylene and PVC resins (2) alloying materials (on demand), lumber (3) and skids (3).

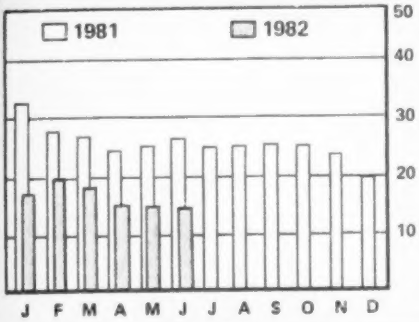
**Houston:** Reduced leads are reported for boilers and furnaces (7-9 months), shop-built heavy wall reactors and converters (8-11 months), heat exchangers (8-9 months for high pressure types and 5-9 months for alloy carbon steel types). But tungsten carbide parts are out a bit (to 14-18 weeks). Some concern about steel castings, too.

**Los Angeles:** Several changes both up and down. Stretching a bit are grey iron castings (6-8 weeks), brass castings (6-8), electro-mechanical devices (8-10), and specialty wire (6). Coming in are galvanized steel (3), copper tubing (6), copper fittings (2-4), insulation material (4), and aluminum sheet (6-8).

**Philadelphia:** Some PMs report a small stretchout in corrugated (to 3-4 weeks). On the other hand carbon steel bars are in a bit (to 4-6). Unchanged are xerographic paper (1), order entry forms (4-6), packaging foam (a week or less), standard fasteners (3-4), standard valves (6), standard pumps (8), and lube oils (1).

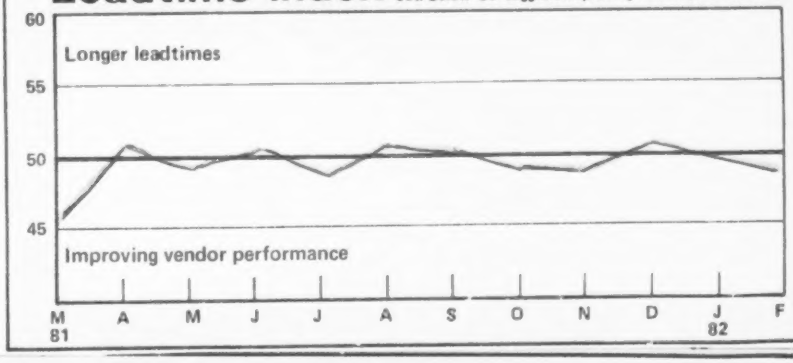
**Pittsburgh:** Little significant change here—with these typical leads (in weeks): Multiwall bags (10-12), corrugated boxes (3-4), wirebound boxes (6-7), standard steel drums (2-3), bleached and natural kraft papers (4-6), lumber and plywood (2-4), steel strapping (2-3), and polyethylene and PVC (4).

## Forward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 4½ | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 6½ | 6½ | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 3½ | 7 | 7 |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 10 |
| Grey Iron Castings (LA) | 7 | 4 | 4 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| Electric & Electronic | Now | Month ago | Six months ago |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 10½ |
| Capacitors (Chgo) | 13 | 13 | 5 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 7 | 7 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 7 | 13 | 6 |
| Relays (Chgo) | 15 | 15 | 12 |
| Resistors (Chgo) | 10 | 12 | 8 |
| Resistors, Wirebound (Phil) | 18 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| Lumber | Now | Month ago | Six months ago |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 3 | 3 | 2 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | 1/5 | 1/5 | 1/5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 3 | 3 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 5 | 6 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 3½ |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| Chemicals-Plastics | Now | Month ago | Six months ago |
|---|---|---|---|
| Adhesives (LA) | 1½ | 1½ | 2½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3½ | 4 | 3 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 1½ | 2 | 2 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2 | 2½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 5 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 5 |
| Titanium Dioxide (LA) | 1½ | 1½ | 1 |

## Paper

| Paper | Now | Month ago | Six months ago |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 7½ | 6 | 6 |
| Aluminum Plate (Chgo) | 7 | 7 | 8 |
| Aluminum Sheet (LA) | 7 | 10 | 11 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 7 | 4 | 4 |
| Brass Rods (Chgo) | 2½ | 2½ | 2½ |
| Brass Sheet (Chgo) | 5 | 5 | 5 |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 3 | 5½ | 5 |
| Copper Mill Prod. (Pgh) | 6 | 7½ | 7 |
| Copper Tube (LA) | 6 | 6 | 6 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 2 | 2 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 4 | 4 | 6 |
| Wire, Specialty (LA) | 6 | 5 | 5 |
| Zinc (Pgh) | 2 | 2 | 2 |

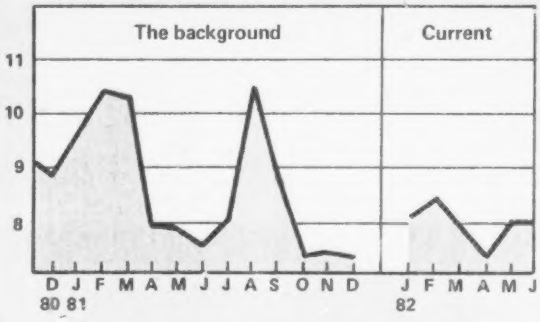
## Miscellaneous

| Miscellaneous | Now | Month ago | Six months ago |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 352 | 52 | 52 |
| Compressors, Centrifugal (Hous) | 57 | 57 | 57 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 10 | 6 | 6 |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 32 | 37 | 37 |
| Heat Exchangers, Hi-pressure (Hous) | 37 | 46 | 46 |
| Insulation Mat'l. (LA) | 4 | 4½ | 5 |
| Machined Parts (Hous) | 9 | 9 | 12 |
| Pipes & Valves (Chgo) | 1 | 1 | ½ |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 10 | 5 | 5 |
| Rubber, Synthetic (LA) | 1½ | 1 | 1½ |
| Rubber Hose (LA) | 5 | 7 | 7 |
| Tungsten Carbide Parts (Hous) | 16 | 15 | 16 |
| Valves, Cast Steel (Hous) | 13 | 13 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## Leading indicators

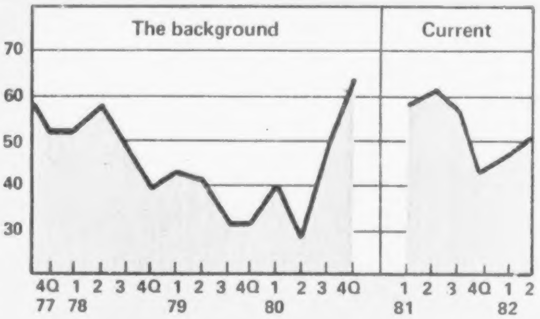
### 1. Auto sales

Millions, seasonally adjusted annual rate



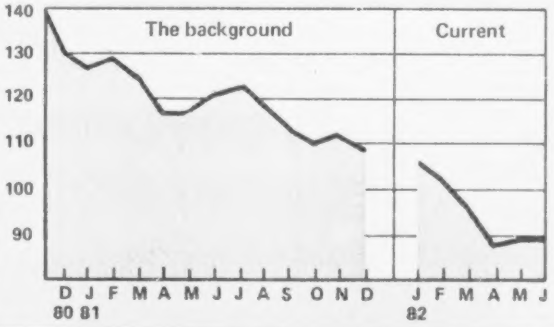
### 2. Business confidence

Index



### 3. Help wanted

Index: 1967 = 100



**Business in brief:**

# Prime indicators limping along

Things may be levelling off. But there are still precious few signs of any meaningful pickup in overall activity.

If there's any doubt on this score, take a look at some of the nation's prime indicators shown on this page. Car sales, for example, are currently limping along at a disappointing 8-million-unit annual rate (top graph). And preliminary early summer figures aren't any more encouraging. True, the current car sales level is better than the 7-million-unit low of some recent months. But it is nowhere near the 9-million rate than some analysts had been projecting.

Nor are recent government moves (the midyear tax cut and higher Social Security benefits) likely to make for any dramatic improvement. The typical paycheck won't be all that much bigger and won't provide nearly enough additional purchasing power to fuel a boom in buying of big-ticket items such as autos.

The labor market also leaves quite a lot to be desired. The unemployment rate continues to run in the 9%-plus range, and job opportunities are scarce. Witness, for example, the help-wanted index (lower graph) which is now running an eye-opening 20% under late 1981 levels. This has to have some impact. For even if consumers are predisposed to loosen up on their pursestrings, they're likely to think twice, given today's shaky job market.

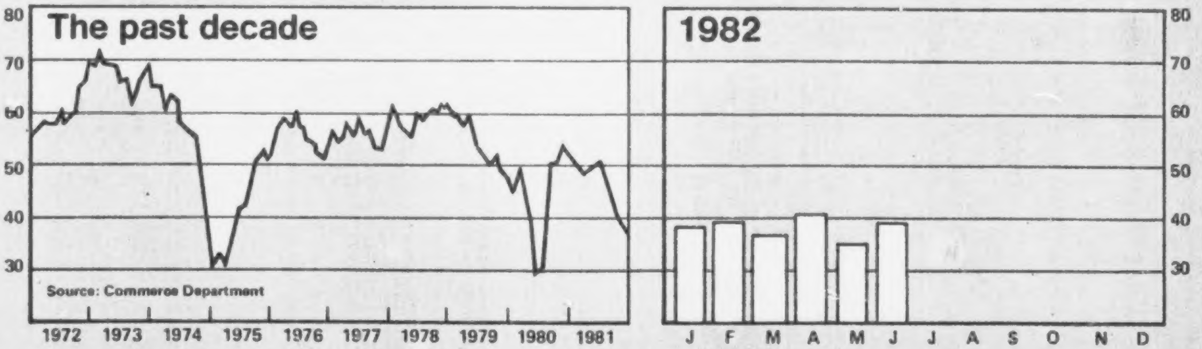
New orders, a key indicator of future activity, also confirms the still rather lackluster prognosis. This is particularly true in the sensitive machine tool sector where incoming business trails yearago levels by almost 50%.

But despite all this discouraging news, there are some signs that the worst may be over. Housing starts have been inching up of late, and the same is true of overall construction awards.

Equally significant is the slight uptick in ***PurchasingWorld***'s sensitive NAPM barometer (below). To be sure, one month doesn't make a trend. Even so, if this bellwether index continues to move up toward the neutral 50 level through the summer months, then a modest business turn around may be possible by fall or early winter. ***PW***

## NAPM business barometer

**Based on five indicators (employment, inventories, new orders, production, vendor performance)**

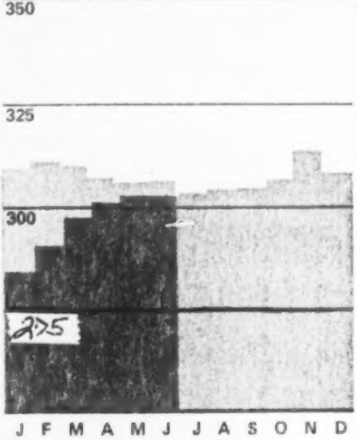


# Industrial prices at a glance

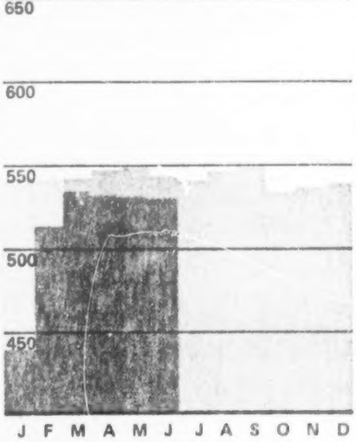
1981 ☐ 1982 ☐

## All items

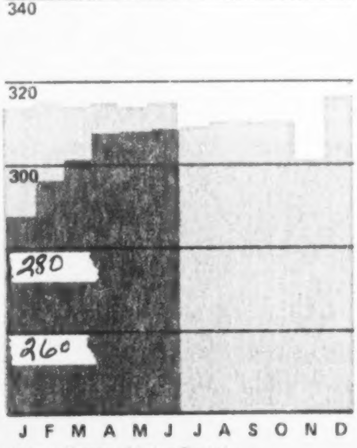
Index: 1967 = 100



## Raw materials



## Semifabs, components



Source: Bureau of Labor Statistics

# Price easiness continues

The second quarter price lull is spilling over into the summer months, with preliminary indications suggesting that overall industrial price averages will show only fractional gains over the July-September period.

Right now, odds favor an increase of only 2-3% at annual rate over the next few months—roughly the same rate of advance noted this past spring.

Note, too, the liberal sprinkling of minus signs appearing in the table below. Add in all the "no changes," and it is probably the producer price index's best performance in over two decades.

Again, steel, nonferrous metals, and plastic resins remain weakest. Paper and packaging quotes also are said to be on the soft side. And the same is true of many machinery and equipment lines as small scattered increases in lists are offset by unofficial discounting.

On the other hand, energy tags—spearheaded by recent gasoline increases—have tended to firm a bit. But even here, the nearterm prognosis is not all that bad. New levelling off in world crude oil prices suggests a parallel levelling off in refined product quotes over the next few months. ***PW***

## This month's breakdown

| | Latest level (May) | Percent change from: | |
|---|---|---|---|
| | | Month ago | Year ago |
| Bearings | 334.0 | 0 | 13.9 |
| Bolts, nuts, etc. | 273.6 | 0 | 3.0 |
| Chemicals, inorganic | 317.0 | 1.1 | 11.5 |
| Chemicals, organic | 377.5 | -1.0 | -8.2 |
| Concrete products | 297.1 | 0.1 | 2.0 |
| Cutting tools, small | 277.0 | 0.1 | 5.7 |
| Electrical instruments | 258.3 | 0 | 15.8 |
| Electric lamps (bulbs) | 288.0 | 1.4 | 7.3 |
| Fans and blowers | 334.8 | 0 | 6.6 |
| Fittings, industrial | 309.1 | 0 | 2.0 |
| Foundry and forge products | 346.0 | 0 | 6.0 |
| Fuel oil (residual) | 1189.4 | 0.9 | -9.8 |
| Furniture, commercial | 275.5 | 0.4 | 6.9 |
| Gasoline | 610.0 | -4.2 | -18.2 |
| Glass, flat | 216.2 | 0 | 2.9 |
| Glass containers | 357.4 | 0 | 6.6 |
| Gypsum products | 259.4 | -1.3 | -0.7 |
| Hand tools | 333.2 | 0.5 | 7.6 |
| Hand tools, power driven | 221.3 | 0.7 | 4.3 |
| Industrial furnaces | 352.4 | 1.0 | 5.2 |
| Integrating and measuring instruments | 212.7 | 0.8 | 8.5 |
| Internal combustion engines | 324.9 | 1.5 | 9.3 |
| Lubricating oil | 888.1 | 0 | 0.8 |
| Lumber millwork | 275.8 | 0.2 | 0.4 |
| Material handling equipment | 288.3 | 0.1 | 4.0 |
| Metal containers | 330.1 | 0.1 | 5.1 |
| Metal mill shapes (nonferrous) | 299.8 | -0.1 | -1.2 |
| Metal tanks | 312.4 | 0.1 | 3.2 |
| Motors and generators | 311.7 | 0 | 7.4 |
| Motor trucks | 276.5 | 2.3 | 6.1 |
| Office and store equipment | 151.0 | 0 | 2.9 |
| Paperboard | 258.8 | -0.9 | 0 |
| Paper boxes and shipping containers | 251.4 | 0.3 | 3.2 |
| Paper office supplies | 223.3 | 0.6 | 4.6 |
| Paint | 265.1 | 2.2 | 6.0 |
| Plastic resins | 285.4 | -0.2 | -0.9 |
| Precisison measuring tools | 238.6 | 1.1 | 8.6 |
| Pumps and compressors | 348.6 | 0.4 | 8.3 |
| Refractories | 340.4 | 0.2 | 12.0 |
| Rubber belts and belting | 330.4 | 0.3 | 15.8 |
| Scales and balances | 224.9 | 0 | 6.1 |
| Steel products | 350.9 | 0 | 6.1 |
| Switchgear | 260.0 | 0.2 | 4.6 |
| Textiles, synthetic fibers | 164.3 | 1.4 | 5.1 |
| Textiles, gray fabrics | 145.5 | -0.2 | -0.2 |
| Tires and tubes | 255.0 | 0.2 | 1.5 |
| Transformers and power regulators | 222.8 | 0.2 | 7.9 |
| Valves, industrial | 327.9 | 0.1 | 4.3 |
| Welding equipment | 267.2 | 0 | 2.8 |
| Wire and cable | 208.2 | 0.1 | 0 |

# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Los Angeles, cwt. | 24.40 | 23.40 | 20.40 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt. | 31.00 | 31.00 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt. | 20.80 | 20.80 | 20.80 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 24.65 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 29.05 |
| Steel, basic wire, Pitts., cwt. | 23.65 | 23.65 | 24.20 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, in alloy, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.14 | 1.20 | 1.22 |
| Brass, yellow, [sheet], lb. | 1.08 | 1.11 | 1.16 |
| Cadmium, ton lots, lb. | 1.00 | 1.10 | 1.75 |
| Copper, electrolytic, wire bars, refd., lb. | 0.69 | 0.73 | 0.86 |
| Copper sheet, over 24 in., lb. | 1.23 | 1.26 | 1.31 |
| Lead, common, N.Y., lb. | 0.27 | 0.25 | 0.39 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.34 |
| Mercury, 20 fl. lots, N.Y., fl. | 362.00 | 365.00 | 426.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 9.35 |
| Nickel, electrolytic, producer lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 5.89 | 6.44 | 8.25 |
| Tin, Straights, N.Y., lb. | 6.25 | 6.53 | 6.53 |
| Zinc, Prime West, East St. Louis, lb. | 0.37 | 0.38 | 0.46 |
| Zinc, die casting alloy, No. 3, lb. | 0.435 | 0.415 | 0.518 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.460 | 0.460 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.51 | 1.52 | 1.75 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | 0.66 | 0.66 | 0.66 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.072 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.805 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.315 | 0.315 | 0.355 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.795 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.33 | 0.42 | 0.42 |
| Polyethylene resin, low density liner film grade (market price), lb. | 0.27 | 0.27 | 0.36 |
| Polypropylene, homopolymer grade (market price), lb. | 0.38 | 0.38 | 0.40 |
| Polystyrene, general purpose grade (market price) lb. | 0.37 | 0.37 | 0.44 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 45.50 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.325 | 0.375 | 0.375 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 93.69 |
| Titanium dioxide, anatase, reg., carlots lb. | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal. | 1.45 | 1.48 | 1.50 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Gummed sealing tape, carton | 15.70 | 15.70 | 15.45 |
| Offset paper, No. 1 Grade | 49.70 | 49.70 | 45.50 |
| Folding boxboard, white clay coated 80 bright, ton | 403.62 | 403.62 | 404.50 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 270.00 | 20.003 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 290.78 | 307.49 | 336.15 |
| Lumber 2x2, pine, mbf, cl | 292.67 | 284.95 | 305.03 |
| Plywood, plyform, 3/4", msf, cl | 583.55 | 581.05 | 607.70 |
| Plywood, 5/8", msf, cl | 337.09 | 329.79 | 357.49 |
| Cement, bulk, ton, tl | 62.42 | 62.42 | 60.23 |
| Sand, ton, cl | 6.09 | 6.07 | 6.10 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.78 | 45.77 | 44.94 |
| Crushed stone, 1½", ton, cl | 7.93 | 7.86 | 7.50 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.75 | 0.74 | 0.68 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 155.88 | 154.57 | 146.93 |
| Brick, common, per thousand, tl | 175.70 | 175.60 | 163.06 |
| Asphalt paving, AC-20 | 156.77 | 161.57 | N.A. |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.64 | 6.62 | 6.51 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.236 | 0.240 | 0.250 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 1.00 | 1.00 | 1.02 |
| Cotton middling, 1", N.Y., lb. | 0.659 | 0.604 | 0.770 |
| Printcloth, 48", 80x80, N.Y., spot. yd. | 0.610 | 0.630 | 0.820 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.70 |
| Blended printcloth, 64", 78x54, yd. | 0.590 | 0.625 | 0.770 |
| 20s combed yarns | 1.72 | 1.72 | 1.85 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.430 | 0.435 | 0.440 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.468 | 0.468 | 0.563 |

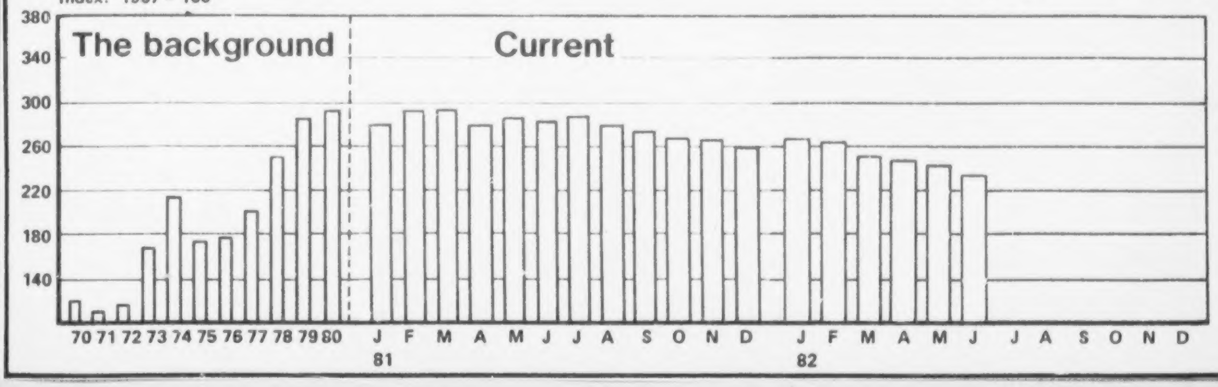
## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 24.50 | 25.75 | 23.25 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 32.55 | 31.00 | 32.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.996 | 0.920 | 1.065 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.990 | 0.956 | 1.010 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.975 | 0.945 | 0.990 |
| Heating oil, No. 2, N.Y., bulk, gal. | 0.959 | 0.943 | 1.013 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 26.60 | 25.10 | 23.80 |
| Jet kerosene, gal. | 0.890 | 0.900 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.34 | 0.34 | 0.44 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

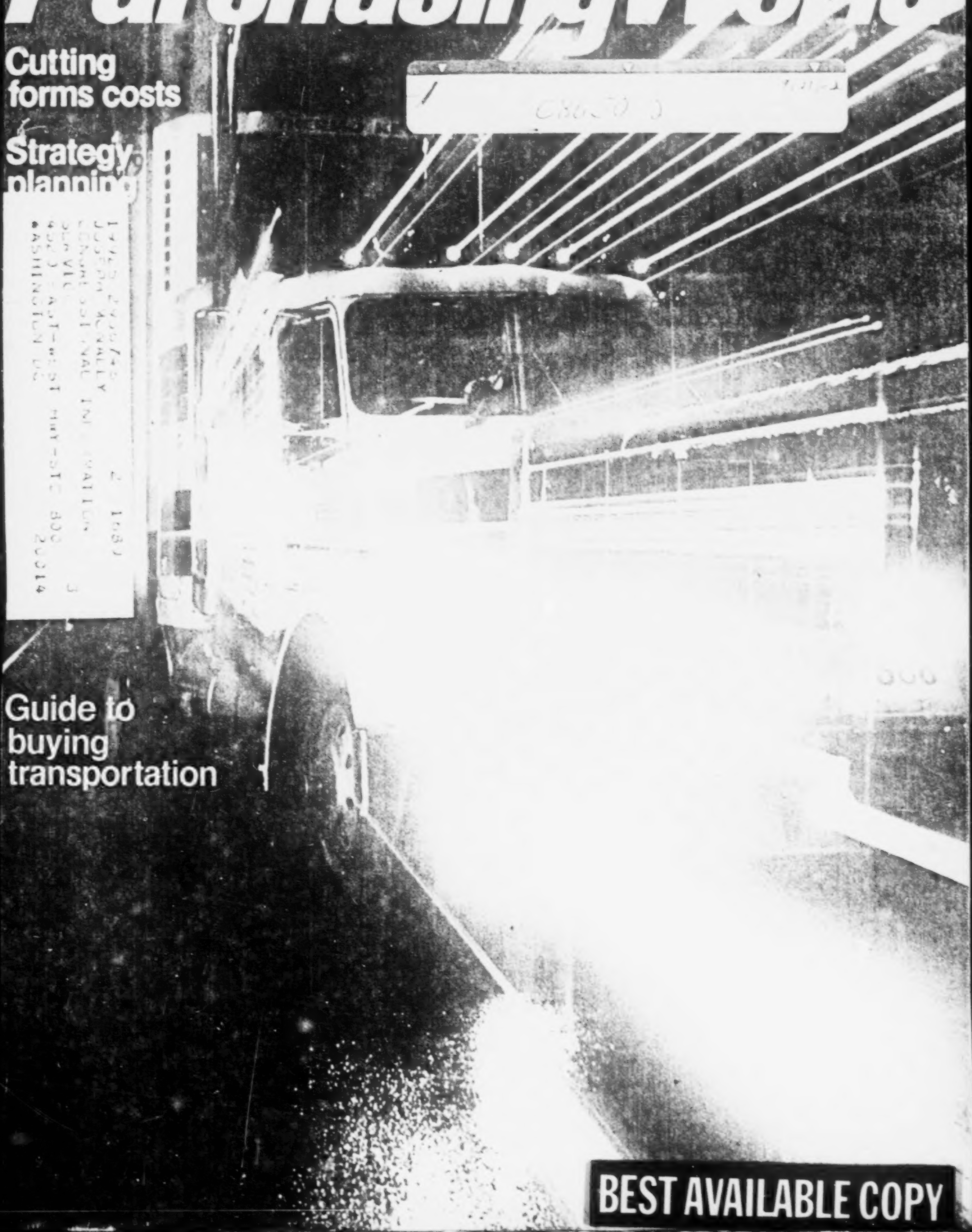
## PW raw material price barometer

Latest month **232.2**
Month before **245.5**
Year ago **286.6**



SEP/1982

# Purchasing World



C8030 0

## Cutting forms costs

## Strategy planning

[illegible] 2 1983
JOSEPH MCNALLY
[illegible] NAL INF[illegible]MATION
SERVICE 3
4520 EAST-WEST HWY-STE 800
WASHINGTON DC 20014

## Guide to buying transportation

BEST AVAILABLE COPY

**PurchasingWorld**® Vol. 26, No. 9 - September 1982

# *Helping you manage the business of buying*

**Editorial Staff**

Editorial Director
**Paul V. Farrell**

Editor
**Richard L. Dunn**

Executive Editor
**Robert S. Reichardt**†

Technical Editor
**John Fitts**

Management Editor
**Lea Tonkin**

Production Editor
**Teri Preston**

Editorial Assistant
**Barbara Axelson**

Art Director
**Richard Treflek**

**Consulting Editors**

Economics and Government
**Dr. Louis J. Paradiso**

Purchasing and the Law
**Dr. John E. Murray, Jr.**

Value Analysis
**Lawrence D. Miles**

Materials Management
**Ernest C. Huge**

Negotiating
**Louis DeRose**

Transportation
**Dr. Leon Wm. Morse**

875 Third Avenue
New York, New York 10022
Phone: 212-605-9400

Technical Publishing

a company of
The Dun & Bradstreet Corporation

1301 S. Grove Ave.
Barrington, Ill 60010
Phone: 312--381-1840

8 **Packaging buyers expect discounts.** Buyers are calling most of the signals these days in the big $40-billion-plus packaging market. And there's little disagreement that there are substantial discounts to be had if you press hard enough.

43 *PW TechFile:* **Hand chain hoists.** Here's basic information for buyers on these handy devices for lifting, pulling, holding, and positioning loads. Both chain and ratchet-operated hoists are discussed.

46 **A basic guide to choosing transportation services.** Rising costs and deregulation mean that transportation is no longer bought just by the book. In this article, industry experts provide some sound advice on how to go about the selection of modes and carriers for your freight.

52 **Use strategy planning to keep purchasing on track.** Volatile prices and suppliers' changing corporate gameplans accent the need for on-target projections. Richard W. Reuter, vice president and director of purchasing at Kraft, Inc., provides some timely guidance in this profile of the man and his work.

56 **Forms management for buyers.** A serious look at the number of forms changing hands in a company, and how they're used, can help the buyer chop 12-15% or more from the total tab for forms usage.

## Around the purchasing world

12 ***PW* Predicts**

16 ***PurchasingWorld* Perspective**

20 **Washington Perspective**

22 **Purchasing and the Law**

26 **Effective Negotiating**

28 **Principles of Value Analysis**

32 **Materials Management Close-up**

38 **International Perspective***

60 **Product Briefs***

69 **Product Information**

77 **Calendar**

80 **Price Perspective**

88 **Freight Newsbriefs**

90 **Business in Brief**

92 **Procurement Status Report**

94 **Industrial Prices at a Glance**

96 **Raw Materials Price Barometer**

* Regional issues

ABP

BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £69 air mail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to 1301 South Grove Ave., Barrington, Ill. 60010. ©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659

# Packaging buyers expect discounts

Buyers are calling most of the signals these days in the big $40-billion-plus packaging market.

The combination of more-than-ample capacity, falling demand, and competitive infighting has in many cases brought prices down to under-yearago levels. And while some firming is anticipated, it should be gradual. Even then, it's not likely to occur before early next year.

That in a nutshell is how some of the nation's top packaging buyers size up this crucial procurement area. Responding to a new ***PurchasingWorld*** survey, they see the current and near-term situations basically shaping up along these lines:

■ **Current prices:** No sweat anywhere, with an impressive 35% of the respondents noting declines in their overall packaging mix over the past 12 months. And another 39% say they've experienced little or no meaningful change on either the up or down side.

To be sure, the situation varies significantly depending on an individual's buying clout, purchasing location, and the type of packaging being purchased. But there's little disagreement that there are now substantial discounts to be had if you press hard enough — especially in the highly competitive corrugated carton market.

Bargains in the latter area, incidentally, are backed up by official Fibre Box Association figures. Average realized quotes, according to the group, are off more than 1% from year-earlier levels. And one big corrugated buyer adds, "you can practically name your price."

Price shading — though on a more limited scale — is also noted in such other bellwether sectors as paper bags, flexible packaging, folding boxes, steel drums, and metal cans. There are good buys on plastic packaging, too, as resin prices remain extremely depressed.

And if further confirmation of general softness is needed, take a look at a new Agriculture Department estimate which puts current packaging prices pretty much on par with comparable 1981 experience — in sharp contrast to the 7% advance noted during the previous year.

■ **Current demand:** The accompanying chart sums up the state of the market — with output of packaging containers off some 9% from year-earlier levels.

Zero in on individual product lines and the picture is equally as bleak. Year-to-date corrugated shipments, for example, are down more than 6%. And even the normally cyclically-insulated metal can sector shows some sharp drops relative to comparable 1981 performance.

■ **Future demand:** Any buying pickup — at least on an overall basis — is expected to be quite moderate. To be sure, about three out of every five PMs now say they expect to increase their purchases of packaging materials over the next 12 months. But if you factor in those who see no change and the few who anticipate even further declines, then the overall increase is only in the order of 2-3%.

■ **Future prices:** Buyers are convinced prices will have to rise, if only to offset mounting cost pressures. But by and large the increases are expected to be on the modest side. Not one respondent, for example, sees an increase of more than 5% for his overall packaging mix. And the average hike for all respondents comes to just a bit over 3%.

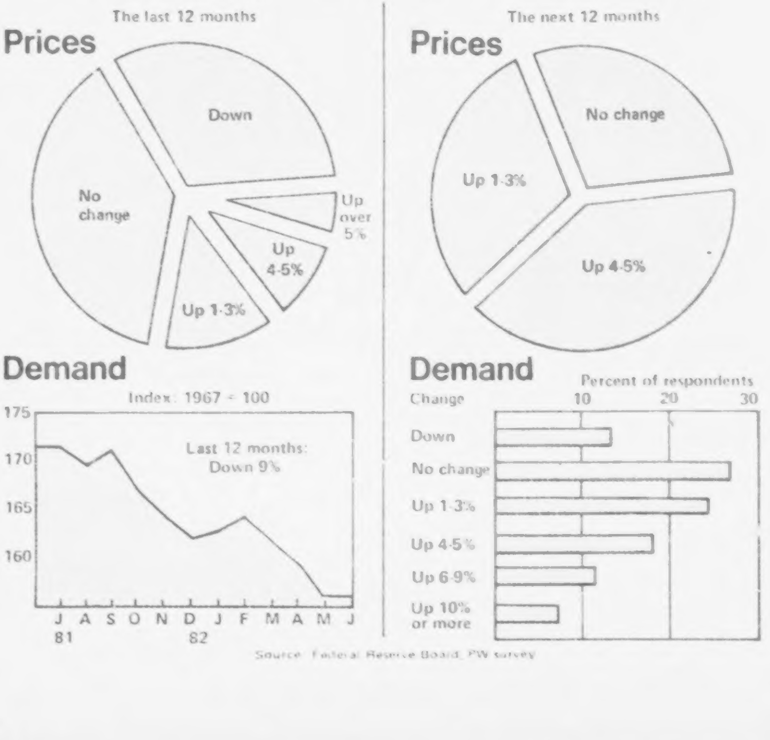
On a product-by-product basis, almost all buyers are bracing for higher corrugated prices — with an increase expected to come in early 1983 when key linerboard costs are projected to go up. The average corrugated increase over the next year is put at somewhere near 5%.

But buyers seem determined to keep these and other increases as low as possible — by a combination of hard-nosed bargaining, pitting one supplier against another, substitution, and continuing shifts to lighter-gauge materials.

One respondent, in an effort to cut costs, even talks of reusing packages when and where possible. And another says he is now monitoring basic paper, metal, and plastic costs — to judge whether any proposed boost in a finished packaging product is justifiable.

Perhaps purchasers' attitudes on packaging is best summed up by this buyer's comment: "Any vendor unwilling to lower prices or meet the competition is now in danger of losing a big share of our business — even when he has been a reliable, longterm supplier. Given current business conditions, we can't afford to ignore any savings — even if it's only for a single month." ***PW***

## Packaging markets at a glance



Source: Federal Reserve Board, PW survey

# PW Predicts...

**By Robert S. Reichard, prices, economics editor**

## Good bargains on equipment

More and more bargains are cropping up on the business equipment front.

And with good reason: The recession, and more particularly dwindling profit margins and overcapacity, have made most corporate managers think twice and even three times before committing any big new purchases. A few examples of what can now be characterized as an allout buyers' market:

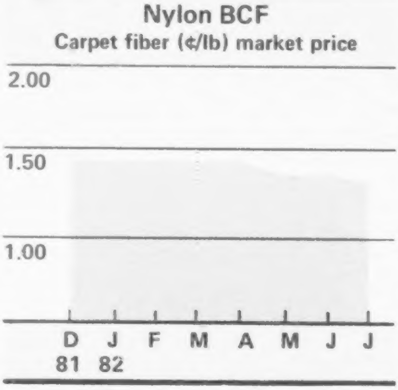
- *Machine tools:* Good buys are available on many Japanese makes—as "in-U.S." inventories in some cases mount to near a five-month supply. Discounts range to as much as 15-20%—with financing terms stretched out over a period of several years. Extended grace periods before original payments are also common.
- *Cutting tools:* Markets are in disarray. Not only has a recent 5% price increase failed to hold, but discounts in recent weeks have been ranging as much as 40-50% off official lists.
- *Computers:* Even traditionally list-oriented IBM has joined the price-cutting fray. The giant firm, for example, is said to be offering big discounts on some items and is reportedly willing to negotiate prices in an effort to drum up sales.
- *Wire electric discharge machines:* Buyers of these EDMs are demanding special terms with their purchases—and in many cases are getting them. Deals involve outright discounting off list, extended payment terms, free accessories, and free shipping.

### Steel

Continuing under-50% mill operating rates tell the story here. With only little fourth quarter improvement expected, the industry will be lucky to ship 68-70 million tons this year—some 17-19 million under 1981. And next year doesn't look all that bullish either—with only about 80 million tons seen. As such, any price advance from current lows is likely to be slow—with any new attempt to boost lists delayed until at least early next year. Imports—expected to top 16 million tons this year—could be another price-rise inhibitor.

### Synthetic fibers

Disappointing demand is putting new downward pressure on prices. This is particularly true in the nylon carpet area where 5¢/lb has been lopped off the going price of BCF and staple—and a further 5¢/lb decline can't be ruled out if carpet buying remains at currently depressed levels. Renewed softness is also noted in nylon textile filament (off 5-10¢/lb)—as is polyester textile filament where sharp declines in Chinese buying could make for another price reduction by early fall.



Nylon BCF

Carpet fiber (¢/lb) market price

### Refined petroleum products

Look for most prices to remain at current levels through fall—except for some seasonal rises by late fourth quarter in the heating oil sphere. One factor behind the price lull is the continuing oil glut. But equally important is continuing poor demand. U.S. consumption this year, for example, could be off by more than 4%—with the biggest declines in residual (down 12-13%). Increased efficiency also plays a role. Thus U.S. energy use per GNP dollar will drop under 49 thousand BTUs—a sharp drop from the 60-plus readings of pre-OPEC days.

### Low-density polyethylene

Still no indication of a turnaround—with this year's demand put at only 7.5-7.7 billion lb (virtually unchanged from last year's disppointing levels). But plant shutdowns should make for a somewhat firmer price picture by early next year—especially if demand picks up. On the latter score, most producers are hopeful of selling 7.9 billion lb next year—enough to bring average 1983 prices up to near 35¢/lb for the key liner grade—about 5¢/lb above currently prevailing levels.

### Electronic components

Prices for the key 64K RAM chip are beginning to bottom out—after falling from more than $20 at the beginning of 1981 to only about $5 a few months ago. The going price is now somewhere in the vicinity of $5-8—with the next move (either up or down) depending on Justice Department antitrust moves against Japanese producers who now control about two-thirds of the world market for the chip.

### Lead

The heavy metal shows few signs of lifting out of the upper 20s range. Indications of weakness include: (1) less-than-expected demand from battery makers—reflecting poor new car demand, (2) a continuing phaseout of lead in gasoline, and (3) the extended payment terms being granted by producers. On the latter score, buyers are said to be seeking as much as 90-120 days to pay their bills—up substantially from recent 30-60 day levels. Longer term, however, prices will have to rise; secondary producers need some 30-

32¢/lb to remain viable in today's markets.

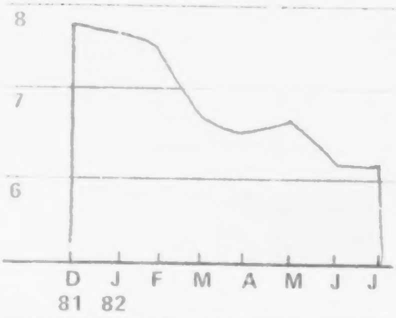
### Cobalt

Some African metal is now moving at near $8/lb and dealers are said to be undercutting even that price. In any event, it's a far cry from producer lists which are still in the high $12.50/lb range. But this is basically an unrealistic quote as Zambia reportedly offers material for under $9/lb. More important, some observers feel prices could slip even further in the fourth quarter if demand doesn't begin to show some signs of life.

### Tin

Some modest price firming is possible by late this month or in October. Reason: Recently announced producer export quotas plus support operations by the buffer stock manager. These could well tighten up the market even if demand doesn't pick up. In any case, producers seem determined to help bring supply and demand back into balance and are already openly talking of extending export cutbacks through much if not all of next year.

Tin
Week composite $/lb



### Vinyl acetate

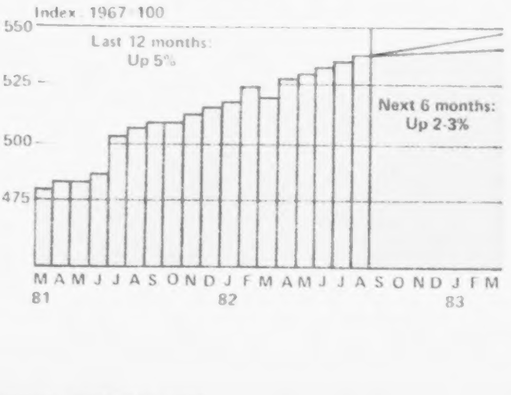
Monomer lists have been chopped 5½¢/lb to bring them back into line with prevailing market tabs. And while this could well be the low point, little nearterm firming is anticipated. Meantime, the monomer softness is spreading to polyvinyl acetate resins where discounting as high as 15-20% off a 24¢/lb list is reported. Adding to the

## Bituminous coal price scene

**CURRENT SITUATION: Markets have turned soft**—a reflection of the recession which, in turn, has pushed demand for electricity, metallurgical coal and exports well under earlier projections. True, overall price averages are up a bit because of stronger contract tags. But the more volatile spot quotes are sagging, **with prices off 10% and 30% for metallurgical and steam types, respectively.** Another sign of easines: Output is being cut back—with 12% of the nation's coal miners now on the relief roles.

**DEMAND: The industry will be lucky to post a 1-2% consumption gain this year** (to 735-740 million tons). And exports look to remain flat at 110 million tons. But things **should be looking up longer term**—with the National Coal Association projecting a 24% overall domestic use gain over the 1980-85 period—led by both the utility and industrial/retail markets. The group also sees about a 22% jump in exports over this 5-year period. And for 1985-90, consumption and exports should both advance by about 25%.

Bituminous coal



**SUPPLY: It's basically a glutted market.** Signs of the times: (1) Stockpiles are now well above normal levels on both the utility and mine levels, and (2) mines are barely operating at breakeven points. And more capacity is on the way. **By 1985, for example, the industry plans to turn out 985 million tons—up 20% from 1980 readings** with an even bigger 25% jump anticipated over the following five years. And while much of the increase will come from the West, Eastern coal will still predominate (with a 63% share in 1990).

**PRICE OUTLOOK: Little more than a 2-3% overall advance is seen over the next six months.** And even this may be on the high side. The Energy Department, would seem to concur—**putting first quarter 1983 coal delivered to utilities at only $1.66/million BTU**—only fractionally above today's $1.62/million BTU quote. And over the longer run, "full-service" delivery—putting mines next to power plants, getting favorable rail haulage rates, etc.—should also help moderate any overall rise.

# Predicts...

weakness in the resin area is the 15% drop in demand from 1981 levels with little hope of improvement of any order through yearend.

### Industrial gases

The recent 10% increase in oxygen, nitrogen, hydrogen, and argon is in trouble. Reason: The largest U.S. producer has failed to go along, noting that it will probably hold the price line until sometime next year. Factors behind the reluctance to boost prices now: slow demand—plus the fact that a spate of new expansions in recent years has led to substantial overcapacity. But some increases seem inevitable by next spring—as electricity, transportation, and other costs continue to climb.

### Zinc

An expected 10% reduction in U.S. 1982 consumption is keeping prices from rising—despite extended summer shutdowns on the part of most mines and smelters, reduced producer inventories, and increased use of the metal for the zinc penny. In any case, the latter represents no big consumption rise—accounting for only about 4% of total usage. The point is that a major recovery will have to wait on a pickup in the key auto and construction industries—and that's still nowhere in sight.

### Copper

Prices are about as low as they're going to get—as most producers sink deeper into the red and the Chinese enter into the market for significant tonnages. On the other hand, there's little sign of any sustained rally—with all signs pointing to a backing and filling in the upper 60s-low 70s range through early fall despite the fact that U.S. producers are operating at less than one-third of their mine capacity. In any event, any bounceback into the upper 80s-low 90s is still at least another 3-6 months away.

### Propylene

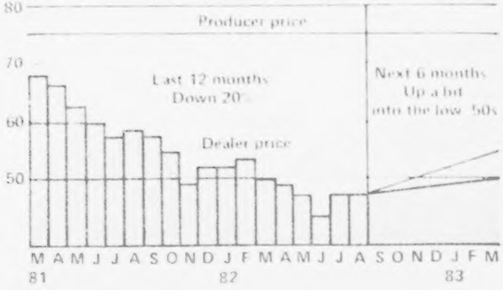
Earlier talk of a tightening supply has failed to materialize. Indeed, price erosion is now the order of the day—with some 1½c/lb knocked off the going price (bringing the chemical and polymer grades down to 20½c/lb and 22½c/lb, respectively. One reason for the weakening market: Demand from polyproplylene producers remains low. Right now PP will be lucky to eke out a small 1-2% demand advance over 1981 when only about 3.9 billion lb cleared the market.

*PW*

## Aluminum price scene

**CURRENT SITUATION: Extemely poor market fundamentals continue to keep the light metal under pressure.** Dealer ingot, for example, continues to back and fill in the low or mid-40s range—some 30¢/lb under the official 76¢/lb producer list. **Semifabricated tags are equally as soft**—with quadruple 5% discounts on common alloy products and triple 5% cuts on heat-treated products. Other signs of an allout buyers' market: primary operating rates which have slipped down to near the 60% level, high producer inventories, sagging domestic orders (down close to 15% so far this year), and dismal profit margins.

Aluminum ingot



**DEMAND: U.S. shipments will be off about 8% this year**—to only 6.1 million tons. Only can stock seems to be doing tolerably well. Other demand inhibitors include: (1) close-to-the-vest customer inventorying (stocks are at their lowest level in nearly a decade), and (2) the lack of Chinese buying—something which helped the industry during the last big (1974-75) downturn. **But next year looks somewhat better**—as transportation consumption hopefully leads the industry to a 7-10% gain over 1982's depressed levels.

**SUPPLY: No problems through next year—and probably beyond**—on a combination of less-than-sensational demand projections, high producer inventories and low operating rates. Other factors assuring ample tonnage: (1) **Continued selling by East bloc producers** (some 80% of LME stocks now comes from behind the Iron Curtain, (2) **still-substantial U.S. imports**—even when the metal has to be warehoused, and (3) **the growing role of recycled metal** (now about 900,000 tons a year—or 11% of total U.S. supply).

**PRICE OUTLOOK: Below-cost selling (ingot tags now run anywhere from 15-35¢/lb under average global production costs) virtually dictate some boosts when demand begins to pick up.** Some industry spokesmen talk in terms of a 10¢/lb hike by early 1983. But that seems overly bullish. Best bet: A slow steady advance starting sometime by late fall or winter—but not enough to bring market quotes for ingot up to list before late 1983 at the earliest.

# Short delivery waits continue —inventory paring unabated

The summer is ending where it began—with virtually everything in easy supply and leadtimes steady to even slightly shorter. The latter trend is summarized in ***PurchasingWorld***'s exclusive leadtime index where the latest reading of 49 (50 is the neutral level) suggests that delivery waits continue to edge down—at least as far as overall averages are concerned.

The fact that many more PMs still report faster than slower deliveries also has to be considered another indication of today's no-sweat situation. Specifically, the 12% reporting speedups is four times bigger than the 3% who have experienced some slowdown in recent weeks.

Talks with surveyed buyers, however, indicate that it will be extremely hard to eke out any further meaningful improvement—as more and more items approach the "on demand" status. Some concern is also expressed about a possible modest stretchout toward yearend if rosy Administration forecasts prove to be correct.

But such concern isn't enough to make for any change in purchasing strategy. Thus, (1) inventory paring continues unabated (50% paring as of the latest month compared to only 10% adding), and (2) buying on a hand-to-mouth basis is increasing (now up substantially to 18% from the 11% reading of a year earlier).

Also indicative of a soft market: Not one item is now listed as being in short supply. ***PW***

## Leadtimes and availability

**Chicago:** Some declines are noted in lumber—with these new leads (in weeks): softwood framing (2), softwood plywood (2), and sanded plyform (2-3). Most metals remain unchanged. Samples: cold-rolled steel sheet (4-5), steel structurals (2), aluminum sheet (8), common alloy aluminum plate (6-8), and copper sheet (5).

**Cleveland:** Smooth sailing virtually everywhere, with current leads (in weeks) as follows: steel cannisters (6), two-ply fiber drums (2), folding cartons (4), maintenance paint (1-2), polyethylene and polyvinyl chloride (2), cold-finished aluminum (6), alloying metals (on demand), glassine papers (4-5), and strapping (2-3).

**Houston:** Centrifugal compressors have come in a bit to 10-16 months. Ditto, steel fabricated light-wall pressure vessels (to 9-14 months). Other typical leads (in weeks): tungsten carbide parts (14-16), packaging materials (2-4), special machined parts (8-10), MRO items (2-4), and mill steel (4-8).

**Los Angeles:** On the downside (in weeks) are heavy-duty steel (9-10), fasteners (9-13), natural rubber (12), carbon black (1½), paint (2), and adhesives (1½). But out a bit are synthetic rubber (3), filler clay (3), heavy aluminum sheet and pipe (48-52), electrical equipment (13-26), and silbrased fittings (17-26).

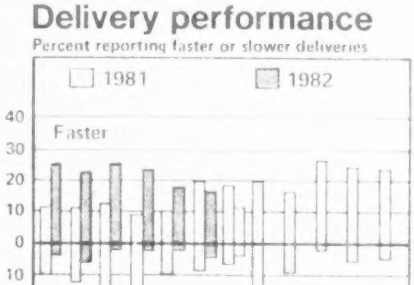
**Philadelphia:** Electronic items are generally in. New shorter leads (in weeks): wire-wound resistors (10), specialty wire-wound resistors (6), metal film resistors (10-12), low-power Shotky ICs (14-16), power transformers (8-12), and printed circuit boards (6). But carbon steel bar from mills is out to 5-7.

**Pittsburgh:** Little meaningful change this month—with these prevailing waits (in weeks): corrugated (3-4), wirebound boxes (6-7), glassine and grease-proof papers (5-6), bleached kraft (4-6), lumber and plywood (2-4), packaging seals (1-2), polyethylene and PVC (4), and plastic films (2-4).

## PW monthly procurement status report

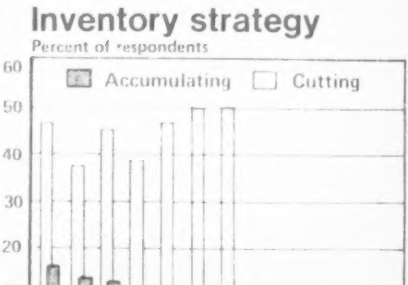
Delivery performance

Percent reporting faster or slower deliveries



Inventory strategy

Percent of respondents



Source: NAPM

# Leadtimes (in weeks)

## Steel

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 4½ | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 6 | 5 | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 3½ | 3½ | 7 |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 10 |
| Grey Iron Castings(LA) | 7 | 7 | 4 |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 17 | 17 | 22 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 8½ |
| Capacitors (Chgo) | 13 | 13 | 11 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 9 | 9 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 7 | 7 | 10 |
| Relays (Chgo) | 15 | 15 | 12 |
| Resistors (Chgo) | 10 | 10 | 10 |
| Resistors, Wirebound (Phil) | 10 | 18 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2 | 3 | 2 |
| Plywood (Phil) | 3 | 3 | 3 |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | 1.5 | 1.5 | 1.5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

## Packaging

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 3 | 3 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 5 | 5 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 3½ |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | 1½ | 2 | 1½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 2 | 3½ | 5 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 1½ | 1½ | 2 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2 | 2½ |
| Polyethylene Resin (Pgh) | 4 | 4 | 4 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 4 |
| Titanium Dioxide (LA) | 1 | 1½ | 1 |

## Paper

| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

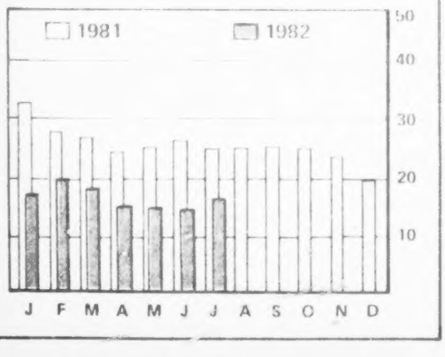
## Non-Ferrous

| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 7½ | 7½ | 6 |
| Aluminum Plate (Chgo) | 7 | 7 | 7 |
| Aluminum Sheet (LA) | 7 | 7 | 12 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 7 | 7 | 5½ |
| Brass Rods (Chgo) | 2½ | 2½ | 2½ |
| Brass Sheet (Chgo) | 5 | 5 | 5 |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 3 | 3 | 6 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 6 | 6 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 2 | 2 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 4 | 4 | 6 |
| Wire, Specialty (LA) | 4 | 4 | 6 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

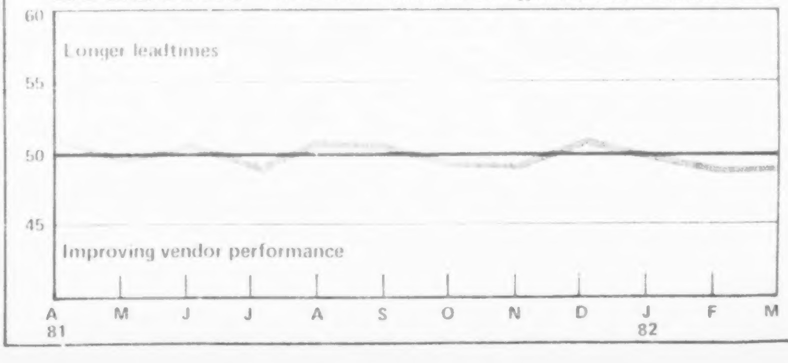
| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 35 | 35 | 52 |
| Compressors, Centrifugal (Hous) | 56 | 60 | 60 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 10 | 10 | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 32 | 32 | 37 |
| Heat Exchangers, Hi-pressure (Hous) | 37 | 37 | 46 |
| Insulation Mat'l. (LA) | 4 | 4 | 5 |
| Machined Parts (Hous) | 9 | 9 | 12 |
| Pipes & Valves (Chgo) | 1 | 1 | 3 |
| Pumps (Hous) | 41 | 41 | 41 |
| Pumps (LA) | 10 | 10 | 10 |
| Rubber, Synthetic (LA) | 3 | 1½ | 1½ |
| Rubber Hose (LA) | 5 | 5 | 7 |
| Tungsten Carbide Parts (Hous) | 15 | 15 | 16 |
| Valves, Cast Steel (Hous) | 13 | 13 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## Forward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



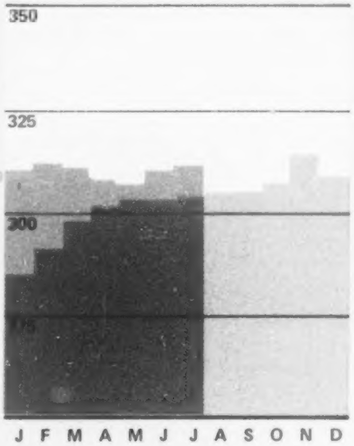
BEST AVAILABLE COPY

## Industrial prices at a glance

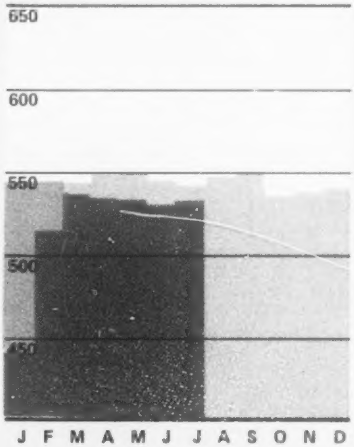
1981 ▨ 1982 ▨

### All items

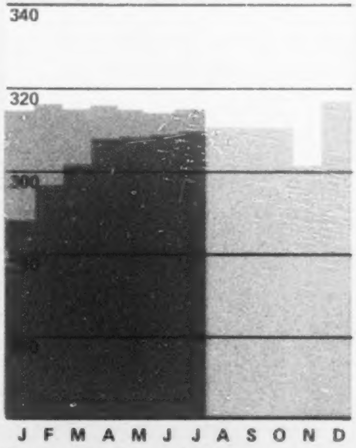
Index: 1967 = 100



### Raw materials



### Semifabs, components



Source: Bureau of Labor Statistics

# Expect more low prices

The current price respite shows every sign of spilling over into fall.

Metal prices, for one, are expected to remain especially weak—as the key auto and construction industries continue to be plagued by interest rates.

A similar situation is shaping up in most other key raw material areas. Specifically, there's little indication of any upward pull in petrochemicals, plastic resins, synthetic fibers, and most building materials. In fact, some further price erosion can't be ruled out in these basic sectors.

Current easiness in petroleum is still antoher price-rise inhibitor—with a continuing oil glut and poor demand combining to keep a lid on tags. On the demand front here, for example, U.S. oil consumption this year could be off upwards of 4%.

More-highly fabricated products aren't escaping unscathed either. Indeed, the small increases in many machinery items may well be overstated as better credit terms are offered to entice the few still in the market.

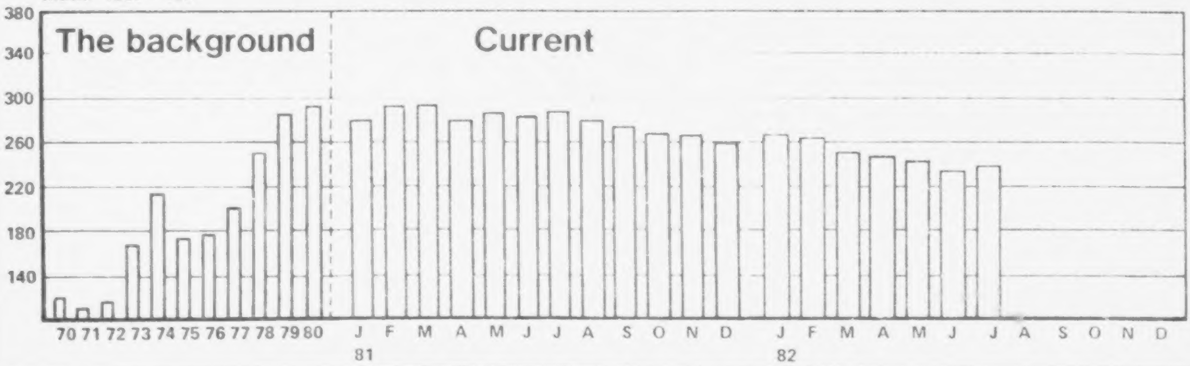
But perhaps the best indicators of today's buyers' market are the liberal sprinkling of minus signs and no other changes in the table below. A pattern not seen in several decades. ***PW***

## This month's breakdown

| | Latest level (June) | Percent change from: | |
|---|---|---|---|
| | | Month ago | Year ago |
| Bearings | 334.0 | 0 | 13.5 |
| Bolts, nuts, etc. | 273.6 | 0 | 4.1 |
| Chemicals, inorganic | 317.8 | 0.3 | 10.8 |
| Chemicals, organic | 369.1 | 2.2 | 10.3 |
| Concrete products | 297.9 | 0.3 | 1.5 |
| Cutting tools, small | 278.2 | 0.4 | 6.0 |
| Electrical instruments | 258.3 | 0 | 15.5 |
| Electric lamps (bulbs) | 287.5 | 0.2 | 6.5 |
| Fans and blowers | 334.8 | 0 | 5.0 |
| Fittings, industrial | 309.1 | 0 | 2.0 |
| Foundry and forge products | 345.2 | 0.2 | 4.8 |
| Fuel oil (residual) | 1227.2 | 3.2 | 2.3 |
| Furniture, commercial | 276.2 | 0.3 | 7.1 |
| Gasoline | 636.5 | 4.3 | 14.4 |
| Glass, flat | 216.2 | 0 | 2.8 |
| Glass containers | 357.4 | 0 | 6.6 |
| Gypsum products | 256.4 | 1.2 | 1.6 |
| Hand tools | 337.0 | 1.1 | 8.7 |
| Hand tools, power driven | 221.7 | 0.2 | 4.5 |
| Industrial furnaces | 353.5 | 0.3 | 5.4 |
| Integrating and measuring instruments | 212.8 | 0 | 8.4 |
| Internal combustion engines | 325.3 | 0.1 | 9.1 |
| Lubricating oil | 888.1 | 0 | 0.8 |
| Lumber millwork | 280.1 | 1.6 | 2.9 |
| Material handling equipment | 286.9 | 0.5 | 3.7 |
| Metal containers | 330.2 | 0 | 5.1 |
| Metal mill shapes (nonferrous) | 296.6 | 1.1 | 2.5 |
| Metal tanks | 312.8 | 0.1 | 2.9 |
| Motors and generators | 312.0 | 0.1 | 6.7 |
| Motor trucks | 281.5 | 1.8 | 6.8 |
| Office and store equipment | 151.6 | 0.4 | 3.3 |
| Paperboard | 255.9 | 1.1 | 1.3 |
| Paper boxes and shipping containers | 250.7 | 0.3 | 2.4 |
| Paper office supplies | 226.5 | 1.4 | 5.3 |
| Paint | 265.1 | 0 | 6.0 |
| Plastic resins | 281.9 | 1.2 | 2.8 |
| Precision measuring tools | 233.6 | 0 | 6.5 |
| Pumps and compressors | 347.3 | 0.4 | 7.5 |
| Refractories | 340.9 | 0.1 | 11.0 |
| Rubber belts and belting | 330.5 | 0 | 13.3 |
| Scales and balances | 225.4 | 0.2 | 0.2 |
| Steel products | 348.6 | 0.7 | 5.3 |
| Switchgear | 261.2 | 0.5 | 4.1 |
| Textiles, synthetic fibers | 163.8 | 0.3 | 3.7 |
| Textiles, gray fabrics | 145.8 | 0.2 | 1.1 |
| Tires and tubes | 255.3 | 0.1 | 1.6 |
| Transformers and power regulators | 223.1 | 0.1 | 7.1 |
| Valves, industrial | 327.2 | 0.2 | 3.8 |
| Welding equipment | 267.4 | 0.1 | 2.0 |
| Wire and cable | 204.4 | 1.8 | 0.8 |

# PW raw material price barometer

| | |
|---|---|
| Latest month | 236.0 |
| Month before | 232.2 |
| Year ago | 289.5 |



# Latest spot market prices

## Ferrous metals

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 23.90 | 22.90 | 21.65 |
| Steel, structural shapes, Chi., cwt. | 22.90 | 22.90 | 21.65 |
| Steel, structural shapes, Los Angeles, cwt. | 24.40 | 24.40 | 22.15 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt. | 31.00 | 31.00 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt. | 20.80 | 20.80 | 20.80 |
| Steel, sheets, C.R., Detroit, cwt. | 24.25 | 24.25 | 24.25 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 29.05 |
| Steel, basic wire, Pitts., cwt. | 23.65 | 23.65 | 25.95 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-14 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, in alloy, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 4.11 |
| Brass, red, 85%, [sheet], lb. | 1.16 | 1.14 | 1.26 |
| Brass, yellow, [sheet], lb. | 1.10 | 1.08 | 1.20 |
| Cadmium, ton lots, lb. | 1.00 | 1.10 | 1.75 |
| Copper, electrolytic, wire bars, refd., lb. | 0.71 | 0.69 | 0.85 |
| Copper sheet, over 24 in., lb. | 1.25 | 1.23 | 1.35 |
| Lead, common, N.Y., lb. | 0.26 | 0.27 | 0.45 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.34 |
| Mercury, 20 fl. lots, N.Y., fl. | 345.00 | 362.00 | 435.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 8.25 |
| Nickel, electrolytic, producer, lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 6.97 | 5.89 | 8.30 |
| Tin, Straights, N.Y., lb. | 6.22 | 6.25 | 7.35 |
| Zinc, Prime West, East St. Louis, lb. | 0.37 | 0.37 | 0.49 |
| Zinc, die casting alloy, No. 3, lb. | 0.435 | 0.435 | 0.520 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.460 | 0.460 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.50 | 1.51 | 1.60 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | 0.66 | 0.66 | 0.66 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.101 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.805 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.315 | 0.315 | 0.355 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.795 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.33 | 0.33 | 0.42 |
| Polyethylene resin, low density liner film grade (market price), lb. | 0.27 | 0.27 | 0.34 |
| Polypropylene, homopolymer grade (market price), lb. | 0.38 | 0.38 | 0.37 |
| Polystyrene, general purpose grade (market price) lb. | 0.37 | 0.37 | 0.43 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 46.50 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.335 | 0.325 | 0.375 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 93.69 |
| Titanium dioxide, anatase, reg., carlots lb. | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal. | 1.45 | 1.48 | 1.50 |

## Paper

| | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.50 | 68.50 | 68.50 |
| Gummed sealing tape, carton | 15.70 | 15.70 | 15.45 |
| Offset paper, No. 1 Grade | 49.70 | 49.70 | 45.50 |
| Folding boxboard, white clay coated 80 bright, ton | 403.62 | 403.62 | 411.67 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 270.00 | 270.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 289.73 | 290.78 | 335.83 |
| Lumber 2x2, pine, mbf, cl | 294.23 | 292.67 | 305.93 |
| Plywood, plyform, 3/4", msf, cl | 574.55 | 583.55 | 608.80 |
| Plywood, 5/8", msf, cl | 342.99 | 337.09 | 358.39 |
| Cement, bulk, ton, tl | 62.42 | 62.42 | 60.19 |
| Sand, ton, cl | 6.02 | 6.09 | 6.10 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 46.35 | 45.78 | 45.16 |
| Crushed stone, 1½", ton, cl | 7.75 | 7.93 | 7.50 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.75 | 0.75 | 0.68 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 156.04 | 155.88 | 147.21 |
| Brick, common, per thousand, tl | 176.05 | 175.70 | 162.96 |
| Asphalt paving, AC-20 | 155.38 | 156.77 | 173.96 |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.58 | 6.64 | 6.49 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd | 0.238 | 0.236 | 0.246 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd | 0.96 | 1.00 | 1.02 |
| Cotton middling, 1", N.Y., lb | 0.621 | 0.659 | 0.707 |
| Printcloth, 48", 80x80, N.Y., spot, yd | 0.58 | 0.61 | 0.83 |
| Army duck, 37", 13 oz., yd | 1.70 | 1.70 | 1.70 |
| Blended printcloth, 64", 78x54, yd | 0.590 | 0.590 | 0.770 |
| 20s combed yarns | 1.72 | 1.72 | 1.85 |
| Wool tops, N.Y., lb | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.445 | 0.430 | 0.483 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.470 | 0.468 | 0.550 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 23.50 | 24.50 | 24.75 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 32.00 | 32.58 | 32.50 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 1.006 | 0.996 | 1.054 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.940 | 0.990 | 1.010 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.940 | 0.975 | 0.955 |
| Heating oil, No. 2, N.Y., bulk, gal. | 0.940 | 0.959 | 1.013 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 25.00 | 26.60 | 22.50 |
| Jet kerosene, gal. | 0.885 | 0.890 | 0.898 |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.33 | 0.34 | 0.44 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

# PurchasingWorld

OCT/1982

10/25/82

C8650-2

23455
SMITH & SON INC
SH
MAINE
04092
YEAR BECAME CUSTOMER:
(5) 00/00
(7) DEALER/CONSUME
32
(9) PROTECT CATEGO
(11) STATEMENT
(13) LATE CHARGE
(15) TAX EXEMPT NBR
(17) CREDIT CODE:

19025 2936748 2 620
JOSEPH MCNALLY
CONGRESSIONAL INFORMATION
SERVICE 3
4520 EAST-WEST HWY-STE 800
WASHINGTON DC 20014

## Special Section:
## Business Systems
## Data File

**PurchasingWorld**® Vol. 26, No. 10 - October 1982

## Helping you manage the business of buying

**Editorial Staff**
Editorial Director
**Paul V. Farrell†**
Editor
**Richard L. Dunn**
Executive Editor
**Robert S. Reichard†**
Technical Editor
**John Fitts**
Management Editor
**Lea Tonkin**
Production Editor
**Teri Preston**
Editorial Assistant
**Barbara Axelson**
Art Director
**Richard Treflek**

**Consulting Editors**
Economics and Government
**Dr. Louis J. Paradiso**
Purchasing and the Law
**Dr. John E. Murray, Jr.**
Value Analysis
**Lawrence D. Miles**
Materials Management
**Ernest C. Huge**
Negotiating
**Louis DeRose**
Transportation
**Dr. Leon Wm. Morse**

†875 Third Avenue
New York, New York 10022
Phone: 212-605-9400

Technical Publishing
a company of
The Dun & Bradstreet Corporation

P.O. Box 1030
Barrington, Ill 60010
Phone: 312—381-1840

8 **Mixed outlook for freight charges.** Transportation costs are up, down, or sideways these days as some buyers are taking advantage of deregulation and lower costs, and others are facing still-rising shipping bills.

47 **Special section: Business Systems Data File**

48 **Business systems buying calls for a blend of skills**

52 **Word processors: A new sophistication emerges**

54 **Electronic typewriters specifications chart**

60 **Copiers specifications chart**

70 **Desktop calculators specifications chart**

79 **Desktop computers specifications chart**

85 **Expect moderate price increases through 1984.** Here's a rundown on what Data Resources Inc. anticipates in the way of inflation in key industrial sectors.

## Around the purchasing world

12 ***PW* Predicts**

18 ***PurchasingWorld* Perspective**

22 **Effective Negotiating**

26 **Transportation Briefing**

28 **Materials Management Close-up**

40 **Price Perspective***

92 **Latest scrap quotations**

96 **Procurement Status Report**

104 **SSCI Survey of Business Conditions**

112 **Business in Brief**

118 **Industrial Prices at a Glance**

120 **Raw Materials Price Barometer**

* Metalworking issues

---

ABP

BPA

***PurchasingWorld*** (USPS 472-470) is published monthly by Technical Publishing, a company of The Dun & Bradstreet Corporation, 1301 South Grove Ave., Barrington, Ill. 60010. Subscriptions: Available without charge to qualified purchasing executives in U.S. manufacturing companies. Available to others in the U.S. for $40/year; Canada $50/year. Foreign subscriptions are available for £60 airmail or £40 surface mail. Sole agent for all subscriptions outside the U.S.A. and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA13QT, England. No subscription agency is authorized by us to solicit or take orders for subscriptions. **Corporate officers:** James B. Tafel, chairman, John K. Abely, president; Robert L. Dickson, executive vice president. **Circulation, editorial, and executive offices,** 1301 South Grove Ave., Barrington, Ill. 60010. Second class postage paid at Barrington, IL 60010 and at additional mailing office. **Send form 3579** to P.O. Box 1030, Barrington, Ill. 60010.

©Copyright 1982 by Technical Publishing, A Division of Dun-Donnelley Publishing Corporation, a company of The Dun & Bradstreet Corporation—All Rights Reserved.

ISSN 0093-1659.

# Mixed outlook for freight charges

How are freight rates faring these days? The answer could well be up, down, or sideways—depending upon whom you happen to be talking to.

Some heads-up transportation buyers, for example, taking advantage of deregulation and intensifying competition, have actually managed to bring their overall receiving and shipping bills down over the past year or so.

Yet talk to others—and the story is a lot different—with rates continuing to move up—albeit at not quite the double-digit pace of the past few years.

In short, transportation costs are all over the lot these days. A new ***Purchasing World*** survey, for example, suggests that while 54% of the respondents did see their bills rise over the past 12 months, a substantial 36% managed to bring down costs and another 10% were able to hold the line at levels prevailing the previous year.

To be sure, few expect to be quite as successful in beating off increases over the next 12 months. But a fair number still feel they can effect some further small reductions in selected areas.

Other key findings of the just-completed survey:

- The average weighted freight rate increase over the past year was on the order of 2%—though the range in individual cases was quite wide, with 27% reporting 5%-or-larger increases and an almost-as-large 23% noting overall declines of the same magnitude.
- Railroad rates over the past 12 months have tended to increase at a somewhat faster pace than those for trucks or air cargo—though by no means as much as suggested by Uncle Sam's official freight rate index which, as of latest report, showed a 6% advance compared to year-earlier levels.
- The average 1983 hike for all modes of transportation is put at 4-5%—not all that bad in view of the accelerating cost pressures faced by most carriers these days.

Nevertheless, some PMs are still cautiously optimistic about wresting further trucking concessions from carriers. On the other hand, they're pretty much reconciled to increases in most other transportation modes—including some fair-sized boosts in the barge and ocean steamship area.

Every single user of air freight, for example, is expecting increases over the next 12 months—with the advances varying anywhere from 1% to 10%. That's a lot different from this past year when about 30% of air users managed to achieve some sort of rate rollback.

But even in the air sector, many feel that there should still be some room for maneuvering—for less than half of the cargo capacity in passenger planes is now being used. Then, too, they note the current difficulty that domestic and North Atlantic carriers are having in agreeing on fall 1982 increases.

In any case, PMs are leaving no stone unturned in their drive to keep transportation costs in line—with contractual agreements figuring significantly in their strategy. The saving from such contracts, they say, can run anywhere from a few percentage points all the way up into the 15% range.

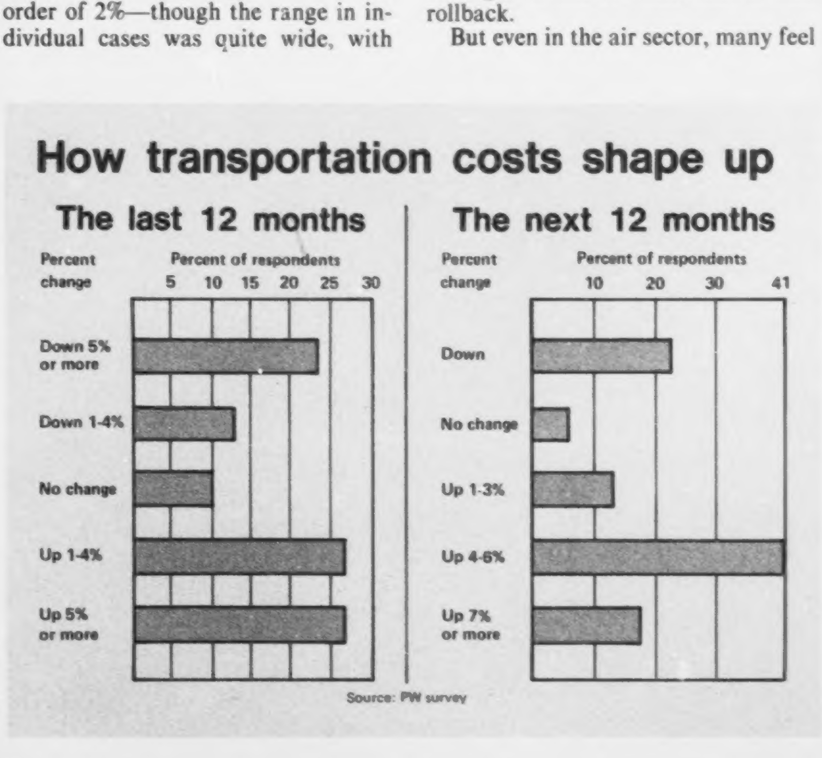
There has also been some shifting in the trucking sphere—away from common carriers and toward private or exempt carriage—with savings in the quite-impressive 15% and even 20% range. Several respondents also tell of economies achieved by more use of irregular common carriers.

And in a few instances there have even been some intermodal shifts. One buyer, for example, tells of a 10%-plus savings achieved by stopping all rail shipments on incoming material—and instead opting for trucks (both contract and common carrier types).

But there are also shifts the other way. An Atlanta-based Eaton Corp. executive notes that by changing from truck to rail on cross-country shipments of trailer loads, he has been able to effect savings ranging anywhere from 20-40%. And another PM tells of a move from straight trucking to piggyback that saved his company $300 per truckload.

Other approaches cited as effective in cutting down on overall transportation costs: (1) the development of truck competition for rail shipments, (2) fuel conservation drives and contests by private fleets, (3) more attempts to buy in truckload quantities, (4) obtaining performance guarantees from carriers, and (5) keeping up the pressure for better rates.

The latter approach is perhaps best summed up by one astute transportation buyer: "We find that if the volume is substantial enough, most carriers are willing to negotiate. And there's no reason why things should be any different in 1983—unless, of course, the economy takes off. And we just don't see that happening." ***PW***


How transportation costs shape up

The last 12 months

The next 12 months

Source: PW survey

# PW Predicts...

By Robert S. Reichard, prices, economics editor

# Good values in imports continue

Imports are more attractive than ever—with average quotes on incoming shipments off more than 2% so far this year.

Credit the downdrift to a combination of factors—including overseas subsidies, poor domestic demands in foreign countries, and a strong U.S. dollar. On the latter score, the U.S. currency on a trade-weighted basis buys 10% more than it did just a year ago. But whatever the reason or reasons, new figures compiled by the Bureau of Labor Statistics are pretty impressive. They show some import tags down as much as 10% under a year ago—with a good portion of the decline occuring over the past 3-6 months.

Here are some year-to-year declines worth noting: wood products (5.9%), textiles (3.3%), iron and steel (1.9%), metal fasteners (2.7%), air pumps and compressors (3.9%), photo equipment (7.4%), and watches and clocks (8.7%).

The steel bargains are also confirmed by both buyers and steel service centers. In two recent surveys, almost every respondent said foreign metal is now coming in at levels under comparable domestic grades.

Nor are prices the only factor behind the current import wave. Often, quality differences—either real or perceived—play a major role. This would certainly seem to be the case in autos, where market penetration continues to grow despite the fact that imported auto tags are running 6% above a year ago.

## Steel

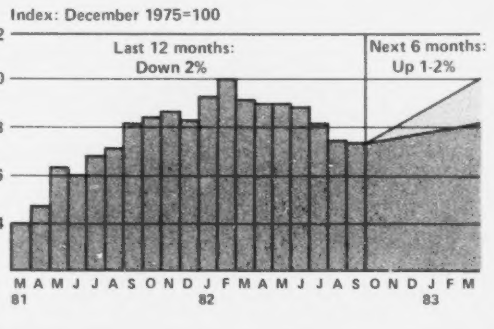
Discounting is still the order of the day—with spot prices in a number of products running as much as 15% under list levels. Nor is any pickup in

## Textiles price scene

**CURRENT SITUATION: The industry—all the way from basic fibers to finished goods—is feeling the impact of the 1982 recession.** Output is down more than 10% from last year's highs—and unemployment has risen to near the 20% mark. And the situation is being further aggravated by the rising imports and falling exports. **Prices, too, have been softening:** the broad-based textile mill products index (see chart) is off only about 2%.

**DEMAND: No major nearterm improvement is seen**—though there could be fractional gains by the fourth quarter as higher take-home pay engendered by the recent tax cut is translated into some additional spending on small-ticket apparel items. On the other hand, carpet sales will continue to run well under year-ago levels until the housing market picks up. **Next year, however, could be considerably better,** as stronger final demand and some modest inventory replenishment makes for **about a 5-7% overall gain.**

Textile mill products



**SUPPLY: Buyers remain firmly in the saddle** as industry operating rates continue to sag. This is most clearly evident in basic fibers where noncellulosics (nylon, polyester, and acrylics) and cellulosics (rayon and acetates) struggle to stay at the 70% level. Moreover, even with the modest demand pickup envisioned for 1983, most of these fibers will be hard put to climb back to the 80% level. **Imports will also continue to play a major role**—as Far Eastern suppliers press to maintain this year's big market penetration.

**PRICE OUTLOOK: Don't rule out some bottoming out over the next few months**—both in the fiber and fabric areas. But any meaningful increases are highly unlikely until next spring. And even then, they're likely to be relatively modest as overcapacity and a continuing influx of cheap imports cuts down on producer price-boosting leverage. Indeed, even if you factor in some badly needed increases in the basic synthetic fiber sector (maybe 5-10%), **overall 1983 textile mill product price averages aren't likely to rise by more than 3-5%.**

demand—the kind that would firm up prices—anticipated anytime soon. During the last three months of the year, for example, domestic mills will be lucky to ship 18 million tons (only 72 million at annual rate). And even next year isn't expected to see any dramatic recovery in demand—with most early estimates putting the 1983 shipping total in the 74-77 million-ton range.

### Fasteners

Plenty of opportunities for good buys—with some 43% of surveyed sellers now openly admitting that discounts are proliferating—in sharp contrast to the only 14% reporting fewer price deals. Two other signs of easiness: (1) more than half the companies are now operating at under 65% of their potential, (2) producers reporting higher inventories now outnumber those noting lower stocks by nearly a 2:1 margin (43% higher versus 23% lower, with the rest remaining unchanged).

### Aluminum

Still no sign of a pickup, as orders lag yearago levels by a substantial margin. Right now, U.S. primaries will be lucky to ship 6.1-6.2 million tons this year—down 6-7% from 1981 levels. Upshot: Spot ingot tags will be hard put to break out of the upper 40s range nearterm—though production cutbacks (the industry is operating at only 60% of its potential) and rising costs (Pacific Northwest power rates may rise 50%) will eventually have an impact. But any climb back to the official 76¢/lb producer quote is still nowhere in sight.

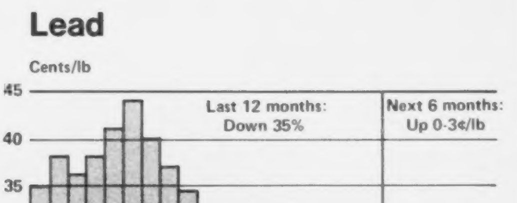
### Polypropylene

Prices of this popular commodity resin continue to erode—because of slow demand and declines in propylene feedstock costs. Major purchases of the key homopolymer grade can now be had for as low as 37-40¢/lb—far under the official 42-50¢/lb list. Moreover, if propylene tags drop another few cents

## Lead price scene

**CURRENT SITUATION: The heavy metal continues to sag,** with prices backing and filling in the mid-to-upper 20s range—a far cry from the 40¢/lb-and-higher quotes of last year. **Buyers are also managing to stretch out payment terms**—sometimes by as much as an additional 15-30 days. Other signs of a continuing bear market: (1) current orders are not coming in at nearly the pace envisioned just a few months ago, and (2) producer stocks are still rising and are now some 20% above earlier levels.

**DEMAND: Overall domestic shipments will be off a few percentage points this year**—primarily because of reduced battery demand from Detroit. The industry has also been disappointed by new EPA rulings which reaffirm Washington's determination to continue the lead-in-gasoline phasedown. **But if auto buying picks up next year** (most forecasts suggest a modest rise), **then shipments could advance by as much as 3-4%.**



**SUPPLY: Today's high inventories and low operating rates tell the story here.** On the latter score, domestic secondary producers who now account for roughly two-thirds of total U.S. production potential, are now operating at only 50% of their potential. Viewed from another perspective, **the 1.2 million tons or so of lead that will be consumed in the United States this year represents less than 70% of the industry's annual potential.** Add in more-than-ample capacity in other producing areas, and it suggests a "no sweat" situation through 1983 and probably out into 1984 and 1985 as well.

**PRICE OUTLOOK: Excessive inventories—on both the metal and battery levels—will keep a nearterm lid on prices.** True, cost pressures would seem to virtually dictate boosts; the industry needs at least a 30-32¢/lb price to remain viable these days. But it's hard to see this level reached before next spring—and even then it will depend on the extent of the expected auto (and hence battery) pickup. **As for a return to the mid-40s levels of last summer—forget it. It's still nowhere in sight.**

# *Predicts...*

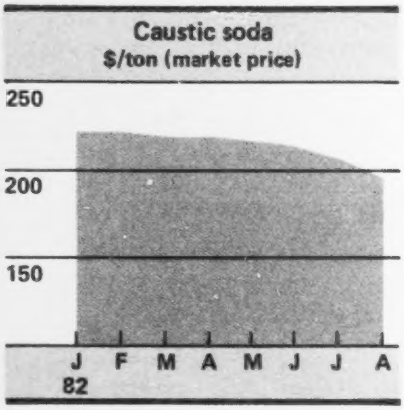
this fall (as many expect), this could knock another cent or so off resin tags. No dramatic recovery is seen for 1983 either—with prices expected to average out in the still-low 40¢/lb range.

## Copper

The red metal continues to back and fill in the depressed 70¢/lb range—as sluggish demand and all-out production in the third world offsets big U.S. mine cutbacks. Inventories, too, seem to be climbing again, so any sustained nearterm rally seems quite remote. Indeed, it may not be until early 1983 before the metal can break through the 80¢/lb barrier. But beyond that, things should start moving faster—with supply-demand-cost fundamentals suggesting as high as a 90¢/lb price by next summer.

## Chlor-alkalis

Caustic soda is again on the shaky side. Volume purchases, for example, are now being made for as little as $190-200/ton—with another $10-20/ton decline possible this fall as (1) inventories begin to accumulate, (2) demand continues to disappoint, and (3) cheap imports from Europe become increasingly available. Co-product chlorine, too, remains far from firm—with volume buys said to be available in the $80-90/ton range—far under the official $135-150/ton list.


**Caustic soda**
**$/ton (market price)**

## Shop towels

Good bargains from China here—with some transactions as low as 9.2¢/unit reported—more than 6¢/unit under the going 15.5¢ U.S. domestic quote. To be sure, some pressure is now being put on the Chinese—in the form of a dumping complaint filed with the International Trade Commission. But it will take at least six months before any definitive Washington action can be expected.

## Molybdenum

The alloying metal is taking its lumps these days—with overcapacity and sluggish demand forcing producers to drop oxide prices 10-15% (to near $5.85/lb). For those relying on the merchant market, quotes are even lower—somewhere in the $4.40/lb range. More significantly, little nearterm recovery is anticipated—despite recent production curtailments. But the industry remains bullish over the longer pull—expecting domestic chewup to rise from the current 25,000 metric tons per year to near 35,000 by 1985.

## Zinc

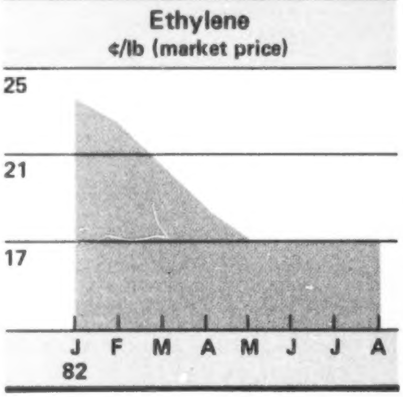
Prices are fairly firm—on a combination of reduced U.S. capacity, prolonged summer shutdowns, and strikes. Inventories are also in pretty good shape. But, as in the case of other nonferrous metals, it will be quite some time before previous peaks can be reachieved. Best bet: A continuing slow price climb into the 45¢/lb price range by winter or early spring. Any bigger hikes, however, seem remote, given the huge capacity excess that hangs over the world market.

## Polystyrene

Recent attempts to boost prices have failed. Volume purchases of the general purpose grade, according to buyers, can still be had for as little as 36-39¢/lb—well under the official 45¢/lb producer list. Credit the failure to poor demand and the recent easiness in ethylene and styrene feedstock costs. But another fourth-quarter price-boosting attempt seems likely as feedstock costs start mounting again and demand shows some seasonal pickup. On the other hand, any increase should be quite modest.

## Ethylene

Despite the fact that a summer price boost to 18½¢/lb has not held up that well (some material still goes for 17¢/lb), producers are making another attempt to boost list prices—this time into the 21½-22½¢/lb range. But whether they will meet with success this time around is also problematical. Reason: weak demand from such derivatives as polyethylene and VCM. Another price-rise inhibitor: low operating rates, with the industry operating at only about 60% of its potential.


**Ethylene**
**¢/lb (market price)**

## Nylon resins

Substantial 30% discounts are now said to be available on Zytel 101 NC10 resins earmarked for the domestic cable tie industry. Look for other users (autos, electronics and appliances) who are still being asked to pay $1.81/lb to press for similar price breaks. ***PW***

# Expect moderate price increases through 1984

## But good news on prices is tempered by high interest rates and huge federal deficits

Data Resources Inc. (DRI) isn't buying the Administration's forecast for a brisk recovery. Indeed, the big Lexington, Mass.-based econometric consulting firm doesn't see any return to 4% GNP growth until 1984.

But the relatively slow growth envisioned in the years immediately ahead will bear some dividends on the price front—with DRI projecting only about a 6-7% consumer inflation rate over the next few years. And even the badly depressed industrial producer price sector will show only a relatively modest 6.6% advance over the next year, though by 1984 some acceleration into the 8½% range is probable (see chart).

Other key projections culled from DRI's latest quarterly outlook:

- **Industrial production.** Rates of growth will tend to outpace GNP. DRI's estimates here: a 6.3% advance next year and a 7.1% increase in 1984.
- **Budget deficit.** Still plenty of problems here, with the red-ink figure put at $126.8 billion in fiscal 1983 and at an almost-as-large $115.4 billion in fiscal 1984.
- **Interest rates.** No real relief is seen, as the prime rate averages out at a high 15.3% in 1983.
- **Housing.** Starts will grow to 1.3 million units in 1983—a fair-sized gain over this year's total—as mortgage rates fall from 17% to about 15.7% in 1983.
- **Capital spending.** Equipment outlays should pick up by 1983, but gains in factory construction will have to wait until the second half. By 1984, a fairly strong 8.4% overall capital investment advance is anticipated.
- **Wages.** The increase, which came to 9.2% last year, will average near 7% over the next few years as unemployment cuts down on union bargaining power. But real earnings will manage to eke out some fractional gains as cost-of-living hikes average only 6.6%.

These relatively restrained wage hikes, combined with fairly modest growth rates, have made for somewhat lower price projections than anticipated three months earlier when DRI released its last nearterm forecast.

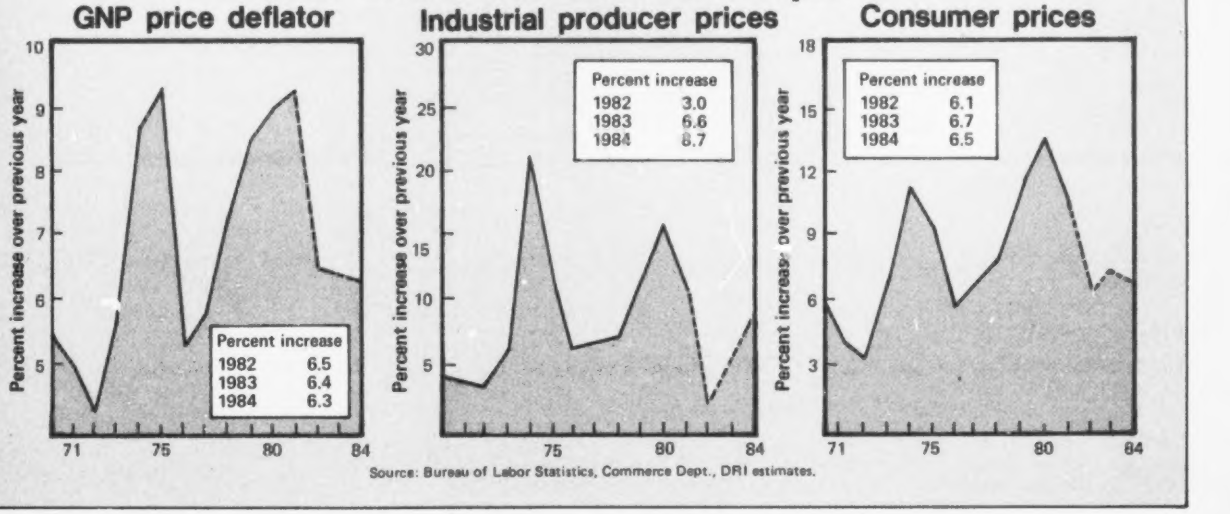
At that time, for example, consumer prices were expected to average 6.8% and 6.9% for 1983 and 1984, respectively, in contrast to the current projections of 6.8% and 6.5%.

For industrial producer prices, the projections have been reduced to 6.6% and 8.7% for 1983 and 1984, respectively, versus the 8.3% and 8.8% projections of three months ago.

### Product-by-product outlook

Here's a more detailed rundown on what DRI now anticipates in the way of inflation in key industrial sectors.

Prices into 1984: a mixed picture



Source: Bureau of Labor Statistics, Commerce Dept., DRI estimates.

■ *Oil.* Crude prices will be advancing at a 5.4% annual rate through the end of 1984. This will translate into an even higher rate of increase for refined petroleum products over this period—something in the order of a 9.3% annual rate.

■ *Coal.* Some escalation is anticipated. Indeed, if recovery follows the forecast pattern, prices from now through the end of 1984 could be rising at an 8.9% annual rate.

■ *Natural gas.* Continuing decontrol spells more double-digit increases, with the annual rate of rise over the next few years put at 13.7%.

■ *Electricity.* The projected advances in fuel detailed previously will translate into substantially higher rates. So will the need for capital to convert from oil and gas to coal-fired generation. Best bet here: annual increases averaging out near 11.9%.

■ *Steel mill products.* No meaningful advance is seen for the rest of this year. But beyond that, prices should begin to recover so that by the fourth quarter of next year, quotes will be averaging about 10% above late 1982 levels.

■ *Aluminum.* High producer inventories will limit any nearterm price rebound. Indeed, despite some turn-up in auto and construction demand, any meaningful recovery will have to wait until next year when the light metal will start moving up the price ladder. The forecast is that fourth-quarter 1982 tags on aluminum shapes will be averaging about 9% above late-1982 levels.

■ *Copper.* Some strong advances are projected, with the red metal advancing at a 13.9% compound annual rate of increase through 1984. Zero in on the first half of next year, and the increases could be a lot higher than that—near 14%.

■ *Metal components.* Better demand, plus a massive facility reinvestment program, should be putting upward pressure on prices by next year. All in all, the aggregate metal products price index could be rising at a 1.9% quarterly rate in both 1983 and 1984—though somewhat smaller increases are seen for hardware items because of somewhat less virulent cost pressures.

■ *Bearings.* No change is seen through the rest of the year. But rising demand beyond that suggests quarterly increases ranging anywhere from 1% to 3.8%.

■ *Chemicals.* Rising energy costs, plus gradually improving demand, point to fairly substantial price increase over the next few years. Upshot: Look for quarterly increases in 1983 and 1984 to run in the 1.2-3.5% range, with the average annual rate of increases pegged at a bit over 7%.

■ *Rubber belts.* Pressure from the auto industry will limit nearterm increases to only 5.5% a year.

■ *Corrugated cartons.* Discounts should slowly begin to dry up. But increases will be modest, averaging out at near a 5.6% annual rate over the forecast period.

■ *Construction materials.* Slow acceleration is anticipated as housing gradually picks up. On a compound annual basis, most items can be expected to rise at anywhere from a 6% to 9% rate in 1983 and 1984.

■ *Electronic components.* Only modest acceleration through 1984 is projected for relays and transistors, with the annual boosts put at 4.4% for 1983 and 3.8% for 1984. But capacitors will move up faster—at about a 9.6% annual rate on a combination of strong demand improvement and rising cost pressures.

■ *Tires.* Tolerable levels of escalation are anticipated—6.1% annual rate through 1984—with the biggest increases coming after mid-1983. ***PW***

### PRICES: The Product-by-Product Outlook
### (Percent change, year-to-year fourth quarter comparison)

| | 1981/80 | 1982/81 | 1983/82 | 1984/83 |
|---|---|---|---|---|
| **RAW MATERIALS, ENERGY** | | | | |
| Supplies for manufacturing | 8.8% | 5.2% | 7.3% | 8.6% |
| Processed fuels & lubricants | 13.5 | 3.2 | 9.0 | 10.6 |
| Miscellaneous chemicals | 15.1 | 7.5 | 3.0 | 6.8 |
| **METALS** | | | | |
| Copper, domestic cathode | −16.7 | −4.2 | 18.0 | 11.0 |
| Copper scrap | −12.0 | −15.3 | 19.8 | 17.3 |
| Aluminum shapes | 8.6 | 2.2 | 9.1 | 12.2 |
| Wire and cable | −2.9 | 0.6 | 12.8 | 9.8 |
| Steel sheet, galvanized | 14.1 | 2.0 | 10.4 | 6.9 |
| Steel mill products | 12.4 | 2.1 | 10.0 | 9.2 |
| Foundry and forge shop prod. | 6.1 | 6.5 | 9.6 | 10.3 |
| Structural shapes | 13.0 | 4.2 | 10.2 | 9.7 |
| **COMPONENTS** | | | | |
| Hardware | 8.7 | 4.8 | 6.7 | 7.8 |
| Bearings | 15.4 | 5.0 | 8.2 | 11.1 |
| Unwatermarked bond paper #4 | 7.0 | 2.2 | 5.6 | 6.3 |
| Magnetic tape | 5.1 | 3.2 | 3.0 | 3.2 |
| Digital Mos IC's | −9.9 | −9.4 | 5.2 | 2.3 |
| Electronic components | 6.0 | 4.0 | 4.6 | 3.7 |
| Electric motors | 12.1 | 2.3 | 8.8 | 10.1 |
| **CONSTRUCTION MATERIAL** | | | | |
| Plastic construction products | 0.1 | −4.1 | 8.8 | 8.9 |
| Bituminous paving material | 18.2 | 0.0 | 10.8 | 11.1 |
| Concrete products | 5.7 | 1.8 | 6.5 | 9.2 |
| Heating equipment | 8.0 | 6.1 | 6.5 | 6.9 |
| Structural metal products | 9.6 | 0.6 | 6.8 | 10.0 |
| Paint materials | 9.7 | 1.0 | 10.8 | 10.2 |
| **EQUIPMENT** | | | | |
| Switchgear | 7.5 | 4.1 | 8.6 | 8.3 |
| Machine tools (metal cutting) | 8.6 | 7.0 | 8.2 | 12.6 |
| Mining equipment | 8.5 | 8.2 | 9.3 | 10.3 |
| Construction equipment | 9.9 | 6.2 | 7.5 | 10.0 |
| Electronic instruments | 4.7 | 5.2 | 5.6 | 6.5 |
| Motor trucks | 12.5 | 4.3 | 9.0 | 8.5 |
| Pumps and compressors | 11.4 | 6.9 | 8.7 | 12.5 |

Source: Data Resources, Inc.

# Good buys in plastic resins

Plastic resins are likely to remain pretty good buys over the next few years.

To be sure, some price increases are inevitable—as demand gradually picks up and producers move to recoup cost hikes that they have been forced to absorb over the past year or so. But by and large, the boosts will be moderate—well under both the general inflation rate and those anticipated for competing materials such as metals.

The actual projected increases (compound annual rate over the 1981-84 period) are detailed in accompanying chart. For the big commodity resins shown, the advances vary from a low of less than 3% (for low-density polyethylene) to a relatively modest high of 6.6% (for polypropylene).

Those figures, supplied by Probe Economics (a chemical industry consulting outfit), are accompanied by demand estimates. And here the numbers are relatively low for an industry that as recently as the late 1970s was growing at or near double-digit rates.

On the demand front, for example, increases over the next few years are pegged at anywhere from a low 2.8% annual rate (again for low-density polyethylene) up to 5.3% in the cases of polypropylene and polystyrene.

Nevertheless, Probe Economics still sees some key opportunities for growth and innovation. In particular, it cites developments in reinforced plastics, high-performance engineering resins, linear low-density polyethylene, and polyparamethyl-styrene. All these should grow well-above average levels.

Also worth noting: A changing industry structure may be in the making. Specifically, continuing competition will make for consolidations—with the market increasingly being left to high-volume producers.

One of those big producers—DuPont—claims that the outlook for engineering thermoplastics is particularly bright, especially in comparison to the costs of the metals they're intended to replace.

True, DuPont has an axe to grind, but its figures are impressive, nevertheless (see second chart).

Note, for example, that these plastics already have a considerable cost advantage. And if you buy DuPont's assumptions, this advantage is likely to grow a lot wider in the years immediately ahead.

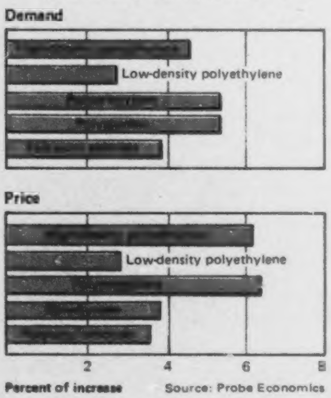
The actual savings over competing metals (now and in 1990) are estimated as follows:

- Zinc. A 6.2¢/cu in savings available now by going the plastic route will grow to 11.9¢ by 1990.
- Magnesium ingot. The current 2.5¢/cu in plastic cost advantage wil jump to 5.9¢ by the end of the decade.
- Cold-rolled steel alloy strip. The current 3.3¢/cu in advantage rises to near 4.8¢ by 1990.

Viewed from another perspective, the cost advantage in 1990 engineering plastics will range from 23%, in the case of aluminum, to near 48%, in the case of zinc. Only hot-rolled steel sheet, among the metals, continues to be cheaper than plastics on a ¢/cu in. basis.

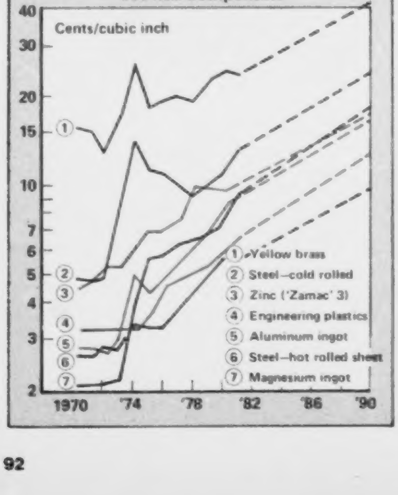
Why the growing advantage? DuPont says it's because rising energy costs will impact more heavily on metals than on thermoplastics. Energy accounts for about 35% of the average metal's production cost versus 15-20% for typical engineering plastics. ***PW***

**Plastic Resins:**
**A medium-term out-look**
(Annual rates of increase 1981-84)



Source: Probe Economics

**Engineering Plastics Versus Metals**
A Price Comparison



## Latest scrap quotations

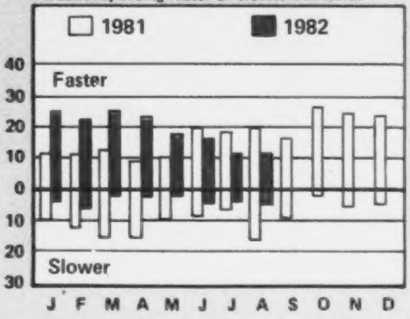
| | Now | Month ago | Year ago |
|---|---|---|---|
| Steel, No. 1 hvy., dlvd., Pitts., ton | 58.00 | 58.00 | 102.00 |
| Steel, No. 1 hvy., dlvd., Clev., ton | 54.00 | 54.00 | 94.00 |
| Steel, No. 1 hvy., dlvd., Chi., ton | 51.00 | 51.00 | 92.00 |
| Copper, No. 1, East, wholesale buy, dlvd., lb. | 0.55 | 0.55 | 0.71 |
| Copper, No. 2, East, wholesale buy, dlvd., lb | 0.480 | 0.485 | 0.630 |
| Brass, red, East, wholesale buy, dlvd., lb. | 0.51 | 0.51 | 0.67 |
| Brass, yellow, East, wholesale buy, dlvd., lb. | 0.310 | 0.305 | 0.420 |
| Alum., old sheet/cast, E., wholesale buy, dlvd., lb. | 0.23 | 0.23 | 0.31 |
| Alum., mixed clip., E., wholesale buy, dlvd., lb. | 0.245 | 0.245 | 0.345 |
| Zinc, old, East, wholesale buy, dlvd., lb. | 0.100 | 0.105 | 0.155 |
| Lead, clean solids, East. wholesale buy, dlvd., lb. | 0.16 | 0.16 | 0.27 |
| Passenger tires, mill purchase, ton | 16.00 | 16.00 | 16.00 |
| Butyl tubes, mill purch. (free of valves), lb. | 0.065 | 0.065 | 0.065 |
| Black natural tubes, mill purch. (free of valves), lb. | 0.060 | 0.060 | 0.060 |
| Paper, No. 1 mixed, dlr., N.Y., ton | Nom. | Nom. | Nom. |
| Paper, old corrug. box, dlr., Chi., ton | 5.00 | 7.00 | 20.00 |
| Paper, old corrug. box, dlr., N.Y., ton | 4.00 | 6.00 | 10.00 |
| Polyethylene scrap, lb. | 0.20-0.30 | 0.20-0.30 | 0.20-0.30 |
| Polystyrene scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Polypropylene scrap, lb | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| ABS scrap, lb. | 0.18-0.28 | 0.18-0.28 | 0.18-0.28 |
| Roofing rags, No. 2, dlr., lb. | Nom. | Nom. | Nom. |
| Osnaburg cuttings, dlr., f.o.b. N.Y., lb. | 0.12 | 0.13 | 0.13 |
| White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb. | 0.11 | 0.11 | 0.25 |

## PW monthly procurement status report

Source: NAPM

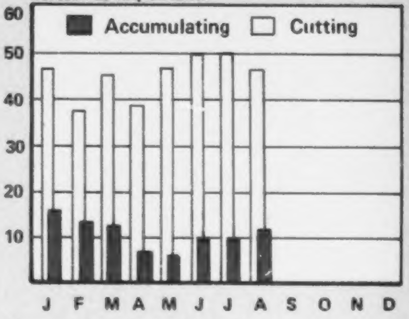
### Delivery performance

Percent reporting faster or slower deliveries



### Inventory strategy

Percent of respondents



# Leadtimes couldn't be shorter, all items in good supply

It looks like another few months of smooth sailing as far as availability and leadtimes are concerned.

Average delivery delays, for example, are down to their lowest point in years—with more than half of the nearly 200 items regularly monitored by ***PurchasingWorld*** now sporting shorter leads than a year ago.

To be sure, ***PurchasingWorld***'s exclusive leadtime index is now relatively stable in the neutral 50 range. But that's only because it is virtually impossible to bring things in any further.

The "no sweat" trend is further confirmed by NAPM's series on vendor performance—with 12% of surveyed respondents reporting faster deliveries—far outweighing the small 5% who note some slowdown.

And if there's still any doubt about the current more-than-ample supply situation, take a look at factory operating rates. The overall average is down near 70%—with many key sectors (including machine tools, steel, nonferrous metals, plastics, and selected chemicals) a lot lower than that.

Nevertheless, some buyers remain concerned about the longer pull, fearing that razor-thin vendor inventories may not be enough to meet any sudden surge in demand. As one PM puts it, "this is something that will bear close monitoring—with periodic reappraisals required to keep things on an even keel." ***PW***

## Leadtimes and availability

**Chicago:** Caustic soda is in a bit (to 1-2 weeks). Ditto, film laminations (to 8). But softwood plywood and sheathing are out slightly (to 2-3). On the other hand, most MRO items (including electrical supplies, fasteners, tools, and mill supplies) are readily available—almost out of stock. And specialty MRO items can be had in a few weeks.

**Cleveland:** Maintenance paint has stretched out to (2 weeks). And the same is true of cold finished aluminum (to 6-8). Most other waits are unchanged as follows (in weeks): 2-ply fiber drums (2), corrugated (3), polyethylene and PVC (2), glassine and greaseproof papers (4-5), plastic shrink film (3), and alloying materials (on demand).

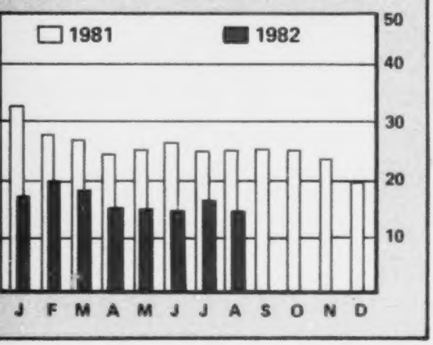
**Houston:** Field-fabricated light-wall pressure vessels have stretched to 10-14 months. Ditto, high-pressure heat exchangers (to 8-12 months). But shop fabricated carbon steel pipe is in a bit to 2-5 months. MRO items remain relatively easy—with leads in the 2-4 week range. Other items including steel and packaging remain unchanged.

**Los Angeles:** A few minor changes here—both up and down. Out a bit (in weeks): carbon black (1-1½), paints (3), heavy-duty steel (52-60), heavy-duty fasteners (16-20). Coming in, however, are synthetic rubber (2), filler clay (2), plasticizers (1), adhesives (1), heavy-duty aluminum pipe (6), and heavy-duty electric equipment (13-39).

**Philadelphia:** Steel has come in almost everywhere—with these new weekly waits: stainless bar (8-10), carbon bar (4-6), stainless round coil (8-10), carbon round coil (6-8), stainless tubing (6). One exception: stainless rod—now out to 6-8 weeks. But corrugated leads are down to 2 weeks and wire-wound resistors to only 10.

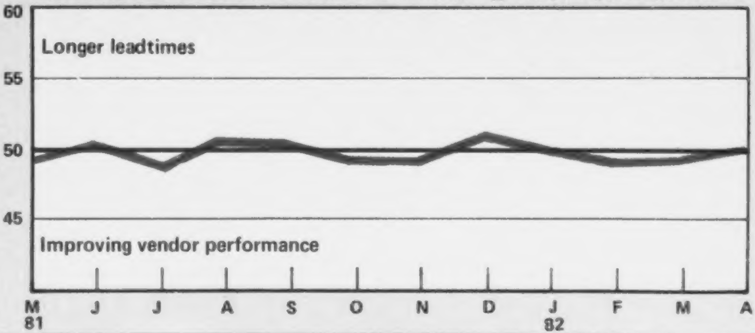
**Pittsburgh:** Little movement either up or down is noted. Typical leads (in weeks): multiwall bags (10-12), plastic bags (3-4), folding boxes (6-8), nonstandard steel drums (12-16), glassine and greaseproof papers (5-6), kraft paper (4-6), lumber (2-4), steel strapping (2-3), polyethylene and PVC (4), and alloying materials (2-3).

## Forward commitments



## Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.



# Leadtimes (in weeks)

| Steel | Now | Month ago | Six months ago |
|---|---|---|---|
| Sheet (Phil) | 5 | 5 | 5 |
| C-R Sheet (Chgo) | 4½ | 4½ | 4½ |
| Plate (Phil) | 4½ | 4½ | 5 |
| Plate (Chgo) | 2 | 2 | 2 |
| Reinforced (Hous) | 6 | 6 | 6 |
| H-R Bars (Phil) | 5 | 6 | 8½ |
| H-R Bars (Chgo) | 2 | 2 | 2 |
| Cold-Drawn Bars (Phil) | 12 | 12 | 12 |
| Galvanized (LA) | 3½ | 3½ | 7 |
| Galvanized (Chgo) | 4½ | 4½ | 4½ |
| Structurals (Chgo) | 2 | 2 | 2 |
| Structurals (Hous) | 17 | 17 | 17 |
| Tubing (Phil) | 19 | 19 | 19 |
| Grey Iron Castings(LA) | 7 | 7 | 3½ |
| Steel Castings (Hous) | 11½ | 11½ | 11½ |
| Forgings (Hous) | 7 | 7 | 7 |
| Pipe, Carbon (Hous) | 15 | 17 | 17 |

## Electric & Electronic

| | | | |
|---|---|---|---|
| Cables (Chgo) | 8½ | 8½ | 8½ |
| Capacitors (Chgo) | 13 | 13 | 13 |
| Circuit Breakers (Chgo) | 6 | 6 | 6 |
| Electromech. Devices (LA) | 9 | 9 | 9 |
| ICs (Linear) (Phil) | 11 | 11 | 12 |
| Motors (Phil) | 21 | 21 | 21 |
| Motors, 1000 hp & Up (Hous) | 39 | 39 | 39 |
| Printed Circuit Boards (Chgo) | 7 | 7 | 13 |
| Relays (Chgo) | 15 | 15 | 15 |
| Resistors (Chgo) | 10 | 10 | 12 |
| Resistors, Wirebound (Phil) | 10 | 10 | 18 |
| Transformers (Chgo) | 10 | 10 | 10 |

## Lumber

| | | | |
|---|---|---|---|
| Hardwood (Pgh) | 3 | 3 | 3 |
| Hardwood (Clev) | 3½ | 3½ | 3½ |
| Plywood (Chgo) | 2½ | 2 | 1 |
| Plywood (Phil) | 1½ | 1½ | 1½ |
| Softwood (Clev) | 3 | 3 | 3 |
| Softwood (Phil) | I/5 | I/5 | I/5 |
| Softwood (Pgh) | 3 | 3 | 3 |
| Particleboard (Phil) | 2½ | 2½ | 2½ |

| Packaging | Now | Month ago | Six months ago |
|---|---|---|---|
| Bags, Kraft (Pgh) | 5 | 5 | 5 |
| Bags, Multiwall (Clev) | 9 | 9 | 9 |
| Bags, Multiwall (Pgh) | 11 | 11 | 11 |
| Cartons, Corrugated (Clev) | 3 | 3 | 3 |
| Cartons, Corrugated (Hous) | 3 | 3 | 4 |
| Cartons, Folding (Phil) | 6½ | 6½ | 6½ |
| Cartons, Folding (Pgh) | 7 | 7 | 7 |
| Cellophane Wrap (Phil) | 5 | 5 | 5 |
| Plastic Bags (Pgh) | 3½ | 3½ | 3½ |
| Plastic Pkg. (Pgh) | 3 | 3 | 3 |
| Shrink Film (Chgo) | 5 | 5 | 6 |
| Shrink Film (Clev) | 3 | 3 | 3 |
| Drums, Fiber (Pgh) | 3½ | 3½ | 3½ |
| Drums, Steel, Std. (Pgh) | 2½ | 2½ | 2½ |
| Wood Pallets (Chgo) | 2½ | 2½ | 2½ |
| Wirebound Boxes (Pgh) | 6½ | 6½ | 6½ |
| Strapping (Clev) | 2½ | 2½ | 2½ |
| Strapping (Pgh) | 3 | 3 | 3 |

## Chemicals-Plastics

| | | | |
|---|---|---|---|
| Adhesives (LA) | 1½ | 1½ | 1½ |
| Naphthalene (Chgo) | 2 | 2 | 2 |
| Paint (LA) | 3 | 2 | 4 |
| Paint, Coil Coating (Pgh) | 3 | 3 | 3 |
| Paint, Maint. (Clev) | 2 | 1½ | 2 |
| Polyester Resin (LA) | 2 | 2 | 2 |
| Polyethylene Resin (Clev) | 2 | 2 | 2 |
| Polyethylene Resin (Pgh) | 4 | 4 | 4 |
| PVC Resin (Chgo) | 1 | 1 | 1 |
| PVC Resin (Pgh) | 4 | 4 | 4 |
| Titanium Dioxide (LA) | 1 | 1 | 1 |

## Paper

| | | | |
|---|---|---|---|
| Fiberboard (Clev) | 3½ | 3½ | 3½ |
| Glassine (Clev) | 4½ | 4½ | 4½ |
| Glassine (Pgh) | 5½ | 5½ | 5½ |
| Groundwood (Clev) | 4½ | 4½ | 4½ |
| Groundwood (Pgh) | 7 | 7 | 7 |
| Kraft (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Clev) | 1 | 1 | 1 |
| Kraft, Bleached (Pgh) | 5 | 5 | 5 |
| Kraft, Natural MFNS (Clev) | 1 | 1 | 1 |
| Laminated (Clev) | 8 | 8 | 8 |
| Tissue (Pgh) | 5½ | 5½ | 5½ |

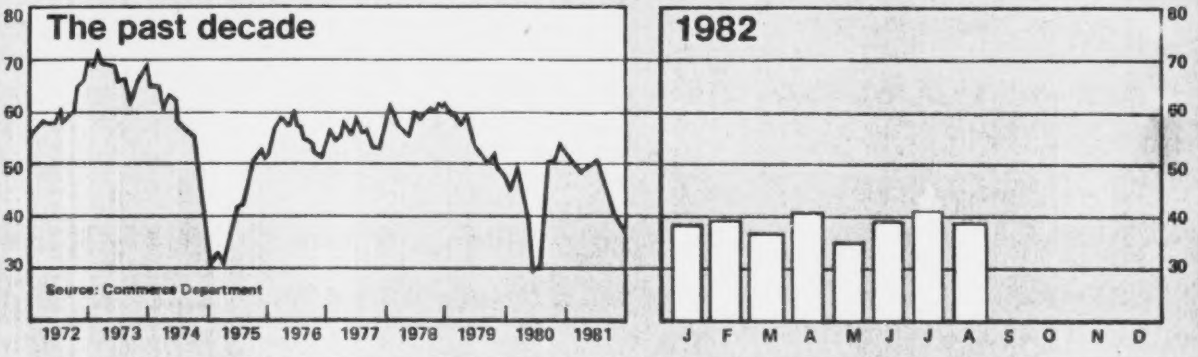
| Non-Ferrous | Now | Month ago | Six months ago |
|---|---|---|---|
| Aluminum Coil (Chgo) | 7½ | 7½ | 6 |
| Aluminum Plate (Chgo) | 7 | 7 | 7 |
| Aluminum Sheet (LA) | 7 | 7 | 12 |
| Aluminum Sheet (Chgo) | 8 | 8 | 8 |
| Brass Castings (LA) | 7 | 7 | 4½ |
| Brass Rods (Chgo) | 2½ | 2½ | 2½ |
| Brass Sheet (Chgo) | 5 | 5 | 5 |
| Brass Tube (Chgo) | 9 | 9 | 9 |
| Copper Fittings (LA) | 3 | 3 | 6 |
| Copper Mill Prod. (Pgh) | 6 | 6 | 6 |
| Copper Tube (LA) | 6 | 6 | 6 |
| Copper Tube (Phil) | 6 | 6 | 6 |
| Lead (Pgh) | 2 | 2 | 3 |
| Magnesium (Pgh) | 2 | 2 | 2 |
| Manganese (Clev) | 1 | 1 | 1 |
| Nickel (Clev) | 1 | 1 | 1 |
| Nickel (Pgh) | 2 | 2 | 2 |
| Silicon (Clev) | 1 | 1 | 1 |
| Tin (Pgh) | 4 | 4 | 6 |
| Wire, Specialty (LA) | 6 | 6 | 6 |
| Zinc (Pgh) | 2 | 2 | 2 |

## Miscellaneous

| | | | |
|---|---|---|---|
| Bearings, Domestic (Phil) | 22 | 22 | 22 |
| Bearings, Foreign (Phil) | 26 | 26 | 26 |
| Boilers & Furnaces (Hous) | 35 | 35 | 52 |
| Compressors, Centrifugal (Hous) | 56 | 56 | 60 |
| Compressors, Reciproc. (Hous) | 45 | 45 | 45 |
| Fasteners (Chgo) | ½ | ½ | ½ |
| Fasteners (LA) | 10 | 10 | 4½ |
| Fasteners, Std. (Phil) | 3½ | 3½ | 3½ |
| Heat Exchangers, Carbon-alloy Steel (Hous) | 32 | 32 | 37 |
| Heat Exchangers, Hi-pressure (Hous) | 43 | 37 | 46 |
| Insulation Mat'l. (LA) | 4 | 4 | 5 |
| Machined Parts (Hous) | 9 | 9 | 12 |
| Pipes & Valves (Chgo) | I | 1 | 3 |
| Pumps (Hous) | 4I | 4I | 4I |
| Pumps (LA) | 10 | 10 | 9 |
| Rubber, Synthetic (LA) | 2 | 3 | 1½ |
| Rubber Hose (LA) | 5 | 5 | 7 |
| Tungsten Carbide Parts (Hous) | 15 | 15 | 16 |
| Valves, Cast Steel (Hous) | 13 | 13 | 17 |
| Welding Supplies (Hous) | 5 | 5 | 5 |

## NAPM business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



**Business in brief:**

# No major upturn expected this year

Don't count on any major fourth quarter economic upturn.

To be sure, the recent drop in interest rates will eventually set the stage for some fair-sized advances. But interest rates don't work overnight. Historically, it has taken at least six months for a major change in borrowing costs to be translated into a change in output and sales.

Lest there be any doubt on this rather lackluster near-term outlook, take a gander at NAPM's business barometer. This key indicator of manufacturing activity a few months down the pike is still mired in the 35-40 range (chart, above), where it's been since early 1982.

The point to keep in mind: Business activity traditionally has only begun to turn up when this yardstick has moved above the neutral 50 line—and such a reading may still be a few months away.

A look at some of the individual series that presage changes in the business climate tell much the same story. Take durable goods new orders. True, the figures are finally beginning to edge up. But gains have to be put in proper perspective. Orders are still close to 10% under early-1981 levels (chart, left).

One of the problems is capital goods, where orders have really nosedived. In the critical machine-tool sector, for instance, incoming business lags yearago levels by close to 50% (chart, lower left). The problem is, of course, that with operating rates near 70%, there's precious little incentive to launch a new machinery-buying program.

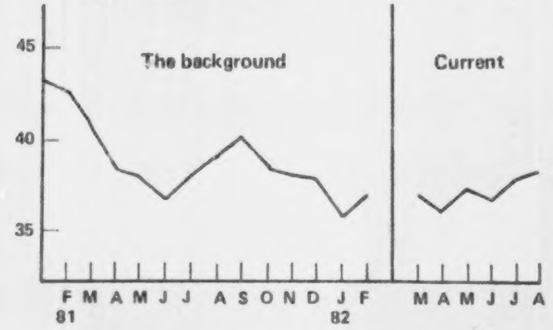
Construction awards, too, continue to bump along at the bottom of the trough (chart, below). It's clear that this precursor of building activity would have to take a solid 20-30% jump before any real gains could be expected.

What does it all add up to then? Only a fractional fourth quarter GNP gain is seen—not enough to keep overall 1982 GNP from dropping about 1%. But next year could be considerably better—with an overall 2½-3½% advance possible. ***PW***

## Leading indicators

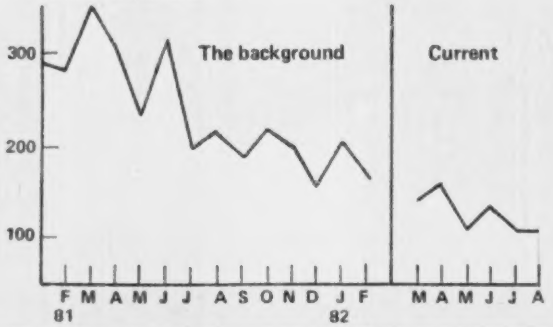
### 1. Real durable sales

Billions of constant 1972 dollars (seasonally adjusted)



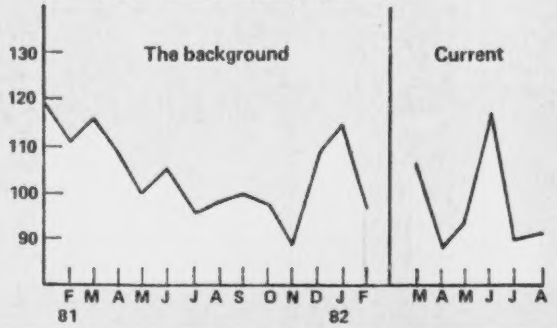
### 2. Machine tool orders

Millions of dollars



### 3. Construction awards

Index: 1977=100 (seasonally adjusted)

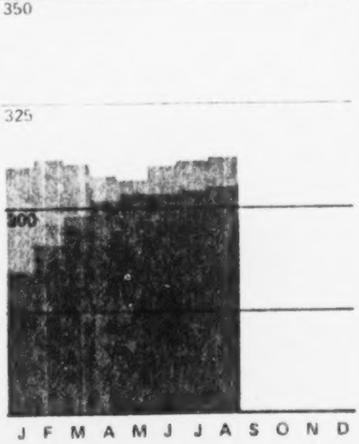


## Industrial prices at a glance

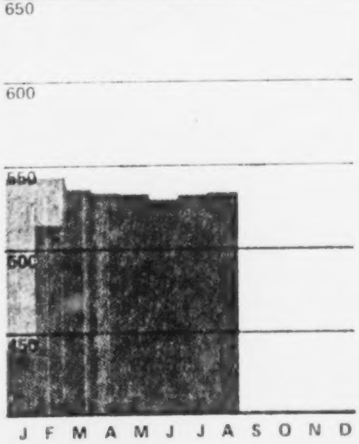
1981 ☐ 1982 ▨

### All items

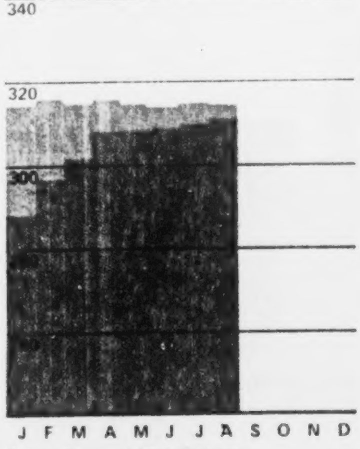
Index: 1967 = 100



### Raw materials



### Semifabs, components



Source: Bureau of Labor Statistics

# Most prices remain stable

Chalk up another month of virtual stability in industrial prices.

Indeed, tags have remained relatively unchanged (at least as far as overall averages are concerned) for several months running. And the year-to-year advance has dropped down to just a fraction above 1%.

Morever, the relief in key industrial sectors is now pretty much across the board—with more than one out of every five items monitored each month by ***PurchasingWorld*** slipping into the negative column.

Energy, too, seems to be taking an extended breather. To be sure, natural gas, gasoline, and LPG have moved up. But these hikes are effectively being offset by (1) declines in home heating oil and residual fuel and (2) relatively unchanged quotes for diesel fuel and electric power.

Also, a lot less strength is now apparent on the equipment front. Thus declines were noted last month in material handling equipment and printing machinery.

More important, government price watchers see much the same for early fall—as low demand and drooping operating rates virtually rule out any big new price-boosting attempts. ***PW***

## This month's breakdown

| | Latest level (August) | Percent change from: | |
|---|---|---|---|
| | | Month ago | Year ago |
| **Bearings** | 335.3 | 0.4 | 6.2 |
| **Bolts, nuts, etc.** | 272.7 | 0.1 | 2.9 |
| **Chemicals, inorganic** | 314.3 | 0.2 | 7.3 |
| **Chemicals, organic** | 366.0 | −0.1 | −11.0 |
| **Concrete products** | 298.3 | 0 | 1.7 |
| **Cutting tools, small** | 276.3 | −0.7 | 3.6 |
| **Electrical instruments** | 258.5 | 0 | 10.2 |
| **Electric lamps (bulbs)** | 285.2 | 0 | 4.3 |
| **Fans and blowers** | 334.3 | 0.1 | 2.8 |
| **Fittings, industrial** | 310.2 | 0 | 2.4 |
| **Foundry and forge products** | 345.5 | 0 | 4.1 |
| **Fuel oil (residual)** | 1250.0 | 0.2 | 0.3 |
| **Furniture, commercial** | 278.0 | 0.1 | 7.3 |
| **Gasoline** | 694.9 | 1.3 | −4.2 |
| **Glass, flat** | 226.1 | 0 | 3.6 |
| **Glass containers** | 357.3 | 0 | 6.5 |
| **Gypsum products** | 253.9 | −0.7 | −0.5 |
| **Hand tools** | 341.9 | 0.9 | 6.2 |
| **Hand tools, power driven** | 221.7 | 0.1 | 3.8 |
| **Industrial furnaces** | 354.9 | 0.3 | 5.4 |
| **Integrating and measuring instruments** | 213.1 | 0 | 6.0 |
| **Internal combustion engines** | 331.5 | 1.4 | 8.5 |
| **Lubricating oil** | 888.1 | 0 | −1.4 |
| **Lumber millwork** | 280.2 | −0.6 | 2.9 |
| **Material handling equipment** | 285.8 | −0.3 | 1.8 |
| **Metal containers** | 328.8 | −0.3 | 3.2 |
| **Metal mill shapes (nonferrous)** | 297.1 | 0.3 | −3.5 |
| **Metal tanks** | 311.4 | −0.1 | 1.9 |
| **Motors and generators** | 313.9 | 0.3 | 3.9 |
| **Motor trucks** | 285.2 | 0 | 9.1 |
| **Office and store equipment** | 152.3 | 0.3 | 2.3 |
| **Paperboard** | 255.5 | 0.2 | −2.0 |
| **Paper boxes and shipping containers** | 249.3 | −0.4 | 0.2 |
| **Paper office supplies** | 226.5 | 0 | 3.8 |
| **Paint** | 265.1 | 0 | 5.7 |
| **Plastic resins** | 282.4 | 0.6 | −5.1 |
| **Precision measuring tools** | 239.2 | 0.3 | 6.4 |
| **Pumps and compressors** | 347.5 | 0 | 5.1 |
| **Refractories** | 341.2 | 0.1 | 11.1 |
| **Rubber belts and belting** | 322.3 | −1.3 | 10.5 |
| **Scales and balances** | 226.9 | 0 | 2.3 |
| **Steel products** | 347.0 | −0.2 | 1.1 |
| **Switchgear** | 260.2 | −0.2 | 3.3 |
| **Textiles, synthetic fibers** | 163.1 | 0.4 | 1.2 |
| **Textiles, gray fabrics** | 144.5 | −0.2 | −3.0 |
| **Tires and tubes** | 257.9 | 0.9 | 3.2 |
| **Transformers and power regulators** | 224.5 | 0.6 | 6.0 |
| **Valves, industrial** | 329.2 | 0 | 2.9 |
| **Welding equipment** | 273.0 | 0.2 | 3.3 |
| **Wire and cable** | 202.2 | 0.1 | −1.9 |

# Latest spot market prices

## Ferrous metals

| Ferrous metals | Latest price | Previous month | Year ago |
|---|---|---|---|
| Pig iron, basic, valley, gross ton | 213.00 | 213.00 | 213.00 |
| Pig iron, Bessemer, Pitts., gross ton | 213.00 | 213.00 | 213.00 |
| Steel, billets, Pitts., net ton | 347.00 | 347.00 | 347.00 |
| Steel, structural shapes, Pitts., cwt. | 23.90 | 22.90 | 21.65 |
| Steel, structural shapes, Chi., cwt. | 23.90 | 23.90 | 21.65 |
| Steel, structural shapes, Los Angeles, cwt. | 24.40 | 24.40 | 22.15 |
| Steel, bars, dlvd. Phila., cwt., merchant quality | 14.35 | 14.35 | 14.35 |
| Steel, bars, Pitts, cwt. | 14.35 | 14.35 | 14.35 |
| Steel, bars, C.R., Pitts, cwt. | 31.00 | 31.00 | 29.20 |
| Steel, plates, Chi., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, Pitts., cwt. | 24.25 | 24.25 | 23.25 |
| Steel, plates, H.R., Pitts., cwt. | 20.80 | 20.80 | 20.80 |
| Steel, sheets, C.R., Detroit, cwt. | 24.65 | 24.65 | 24.65 |
| Steel, strip, C.R., Chi., cwt. | 29.05 | 29.05 | 29.05 |
| Steel, basic wire, Pitts., cwt. | 23.65 | 23.65 | 25.95 |

## Nonferrous metals

| | | | |
|---|---|---|---|
| Aluminum, ingot, lb. (market place) | 0.76 | 0.76 | 0.76 |
| Alum. sheet, H-l4 3003, .04 in., 48x144, mill fin., lb. | 1.02 | 1.02 | 1.02 |
| Antimony, in alloy, lb. | 2.00 | 2.00 | 2.00 |
| Beryllium-copper, cost ingot, lb. | 4.60 | 4.60 | 3.74 |
| Brass, red, 85%, [sheet], lb. | 1.17 | 1.16 | 1.25 |
| Brass, yellow, [sheet], lb. | 1.11 | 1.10 | 1.19 |
| Cadmium, ton lots, lb. | 1.00 | 1.10 | 1.75 |
| Copper, electrolytic, wire bars, refd., lb. | 0.72 | 0.71 | 0.82 |
| Copper sheet, over 24 in., lb. | 1.26 | 1.25 | 1.34 |
| Lead, common, N.Y., lb. | 0.26 | 0.26 | 0.40 |
| Magnesium, pig ingot, [99.8%], lb. | 1.34 | 1.34 | 1.34 |
| Mercury, 20 fl. lots, N.Y., fl. | 340.00 | 345.00 | 445.00 |
| Molybdenum Climax Oxide/bags, lb. | 8.50 | 8.50 | 8.25 |
| Nickel, electrolytic, producer, lb. | 3.20 | 3.20 | 3.50 |
| Platinum, producer, oz. | 475.00 | 475.00 | 475.00 |
| Silver, N.Y., oz. | 9.11 | 6.97 | 9.55 |
| Tin, Straights, N.Y., lb. | 6.59 | 6.22 | 7.85 |
| Zinc, Prime West, East St. Louis, lb. | 0.42 | 0.37 | 0.49 |
| Zinc, die casting alloy, No. 3, lb. | 0.455 | 0.435 | 0.558 |

## Chemicals

| | | | |
|---|---|---|---|
| Acrylonitrile, tanks, lb. | 0.460 | 0.460 | 0.440 |
| Ammonia, anhydrous, fertilizer, wholesale, tanks, ton | 210.00 | 210.00 | 210.00 |
| Benzene, petroleum, tanks, Houston, gal. | 1.47 | 1.50 | 1.60 |
| Caustic soda, 76% solid, drums, carlots, cwt. | 26.00 | 26.00 | 17.50 |
| Cresylic acid [over 25%], tanks, lb. | 0.66 | 0.66 | 0.66 |
| Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb. | 0.101 | 0.101 | 0.101 |
| Glycerine, synthetic, tanks, lb. | 0.805 | 0.805 | 0.805 |
| Linseed oil, raw, bulk, carlots, lb., f.o.b. N.Y. | 0.295 | 0.315 | 0.345 |
| Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants | 0.715 | 0.715 | 0.795 |
| Naphthalene, crude, tanks, lb. | 0.220 | 0.220 | 0.205 |
| Phthalic anhydride, tanks, lb. | 0.33 | 0.33 | 0.42 |
| Polyethylene resin, low density liner film grade (market price), lb. | 0.25 | 0.27 | 0.33 |
| Polypropylene, homopolymer grade (market price), lb. | 0.37 | 0.38 | 0.37 |
| Polystyrene, general purpose grade (market price) lb. | 0.36 | 0.36 | 0.43 |
| Resin, W.G. grade, carlots, f.o.b., N.Y., cwt. | 46.50 | 46.50 | 46.50 |
| Shellac, bone dry, N.Y., lb. | 1.65 | 1.65 | 1.65 |
| Soda ash, 58%, light carlots, cwt. | 6.15 | 6.15 | 6.15 |
| Styrene monomer, 99.6%, tanks, lb. | 0.335 | 0.335 | 0.375 |
| Sulphur, crude, ex-terminal, Tampa, Fla. long-ton | 147.50 | 147.50 | 140.00 |
| Sulphuric acid, 66%, commercial, tanks, ton | 93.69 | 93.69 | 93.69 |
| Titanium dioxide, anatase, reg., carlots lb. | 0.69 | 0.69 | 0.63 |
| Xylene tanks, gal. | 1.45 | 1.45 | 1.48 |

## Paper

| Paper | Latest price | Previous month | Year ago |
|---|---|---|---|
| Bond paper, No. 1 sulfite, water marked, 20-lb., 4 cartons, cwt. | 68.60 | 68.60 | 68.60 |
| Gummed sealing tape, carton | 15.70 | 15.70 | 15.45 |
| Offset paper, No. 1 Grade | 49.70 | 49.70 | 45.50 |
| Folding boxboard, white clay coated 80 bright, ton | 403.62 | 403.62 | 411.62 |
| Wrapping paper, std. distribution cost, kraft, basis wt. 50 lb., roll | 28.00 | 28.00 | 21.00 |
| Kraft linerboard, 42 lb., unbleached, ton | 270.00 | 270.00 | 300.00 |

## Building materials

| | | | |
|---|---|---|---|
| Lumber, 2x4 fir, mbf, cl | 292.70 | 289.73 | 335.01 |
| Lumber 2x2, pine, mbf, cl | 273.40 | 294.29 | 302.77 |
| Plywood, plyform, 3/4", msf, cl | 577.50 | 574.55 | 597.80 |
| Plywood, 5/8", msf, cl | 343.39 | 342.99 | 355.88 |
| Cement, bulk, ton, tl | 62.07 | 62.42 | 60.24 |
| Sand, ton, cl | 5.85 | 6.02 | 6.05 |
| Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd. | 45.88 | 46.35 | 45.06 |
| Crushed stone, 1½", ton, cl | 7.75 | 7.75 | 7.50 |
| Concrete blocks, sand/gravel, 8"x8"x16", ea., tl | 0.75 | 0.75 | 0.68 |
| Gypsum sheathing, ½"x1"x8", msf, tl | 156.38 | 156.04 | 148.04 |
| Brick, common, per thousand, tl | 177.05 | 176.05 | 163.70 |
| Asphalt paving, AC-20 | 154.82 | 155.38 | 172.13 |
| Concrete sewer pipe, 12", prem. joint, per foot, cl | 6.55 | 6.56 | 6.57 |

## Textiles

| | | | |
|---|---|---|---|
| Burlap, 10 oz., 40", N.Y., yd. | 0.248 | 0.238 | 0.254 |
| Cotton drill, 1.85, 59", 68x49, N.Y., yd. | 0.98 | 0.96 | 1.02 |
| Cotton middling, 1", N.Y., lb. | 0.590 | 0.621 | 0.625 |
| Printcloth, 48", 80x80, N.Y., spot yd. | 0.55 | 0.58 | 0.85 |
| Army duck, 37", 13 oz., yd. | 1.70 | 1.70 | 1.70 |
| Blended printcloth, 64", 78x54, yd. | 0.570 | 0.590 | 0.760 |
| 20s combed yarns | 1.72 | 1.72 | 1.85 |
| Wool tops, N.Y., lb. | 3.60 | 3.60 | 3.60 |

## Hides and rubber

| | | | |
|---|---|---|---|
| Hides, cow, light native, packers, Chi., lb. | 0.450 | 0.445 | 0.470 |
| Rubber, No. 1 std., ribbed smoked sheets, N.Y., lb. | 0.460 | 0.470 | 0.525 |

## Fuels

| | | | |
|---|---|---|---|
| Fuel oil, No. 6 or Bunker C, Gulf., bbl. | 24.50 | 23.50 | 23.25 |
| Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller | 31.25 | 32.00 | 32.77 |
| Gasoline, 91 oct., reg., Los Angeles, rack, gal. | 0.970 | 1.006 | 1.040 |
| Gasoline, 94 oct., reg., Chi., tank car, gal. | 0.970 | 0.990 | 1.010 |
| Heating oil, No. 2, Chi., bulk, gal. | 0.905 | 0.940 | 0.970 |
| Heating oil, No. 2, N.Y., bulk, gal. | 0.940 | 0.940 | 1.013 |
| Heavy fuel, PS 400, Los Angeles, rack, bbl. | 26.00 | 25.60 | 23.00 |
| Jet kerosene, gal. | 0.930 | 0.885 | N.A. |
| LP-Gas, propane, Okla., tank cars, gal. [incl. discount] | 0.38 | 0.33 | 0.44 |

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

## PW raw material price barometer

**Latest month 236.2**
**Month before 237.0**
**Year ago 283.0**